Access DB# 64892

SEARCH REQUEST FORM

Scientific and Technical Inf rmation Center

Requester's Full Name: SHENGJUN WANG Examiner #: 77601 Date: 2-20-02
Art Unit: 1617 Phone Number 308-4556 Serial Number: 09/423,776
Mail Box and Bldg/Room Location: ~~2E19~~ 2B19 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need. mj

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Modulation of protein expression using carboxylic acyl alkanoic acid

Inventors (please provide full names): Pamela L. Zeitlin, Saul Brusilow

RECEIVED FEB 22 2002

Earliest Priority Filing Date: 3/11/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Search compounds defined in claims and their employment as therapeutical agent, and for treating cystic fibrosis!

See attached claims 1, 5, 15, 16 and 24

****

STAFF USE ONLY **Type of Search** **Vendors and cost where applicable**

Searcher Phone #: 308-4499
Searcher Location:
Date Searcher Picked Up:
Date Completed: 5/8/02
Searcher Prep & Review Time:
Clerical Prep Time:
Online Time:

AA Sequence (#)
Structure (#)
Bibliographic
Litigation
Fulltext
Patent Family
Other

Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

PTO-1590 (8-01)

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FILE 'HCAPLUS' ENTERED AT 14:29:01 ON 08 MAY 2002
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FILE COVERS 1907 - 8 May 2002  VOL 136 ISS 19
FILE LAST UPDATED: 6 May 2002  (20020506/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

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=> d stat que l54
L33             STR
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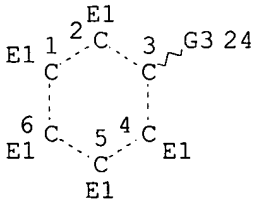

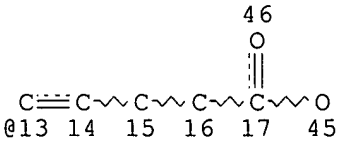

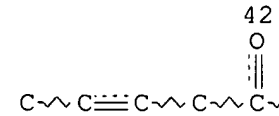

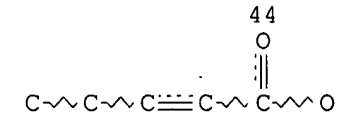


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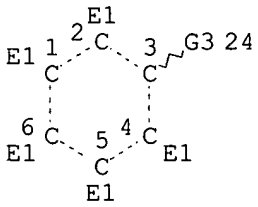

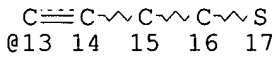

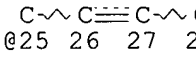

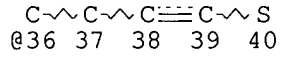

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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
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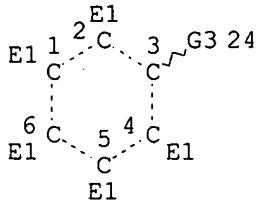

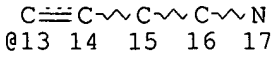

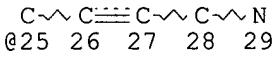

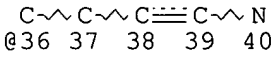

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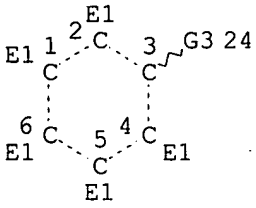

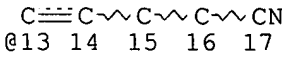

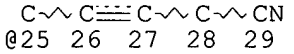

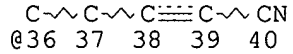

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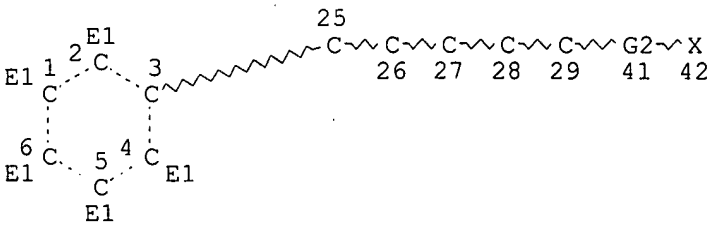
RSPEC I
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L46 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

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L58          47 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51(L)(LUNG OR (SURFACTANT OR
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                TAY(W)SACH?)


=>.d ibib abs hitrn l58 1-47

L58  ANSWER 1 OF 47  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2002:251850  HCAPLUS
DOCUMENT NUMBER:          136:273206
TITLE:                    Combination therapy for treating hypercholesterolemia
                          using a bile acid sequestrant polymer and a
                          cholesterol-lowering agent
INVENTOR(S):              Huval, Chad Cori; Holmes-Farley, Stephen Randall;
                          Petersen, John S.; Dhal, Pradeep K.
PATENT ASSIGNEE(S):       Geltex Pharmaceuticals, Inc., USA
SOURCE:                   U.S., 12 pp., Cont.-in-part of U.S. 6,083,497.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   3
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.   DATE
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     US 6365186         B1   20020402       US 1999-311103    19990513
     ZA 9809673         A    19990511       ZA 1998-9673      19981023
     US 6248318         B1   20010619       US 2000-521975    20000309
PRIORITY APPLN. INFO.:                   US 1997-964536   A2 19971105
AB   A method for treating hypercholesterolemia and atherosclerosis, and
     reducing serum cholesterol comprise administering to a mammal a compn.
     contg. a bile acid sequestrant compd. which is an unsubstituted
     polydiallylamine polymer and a cholesterol-lowering agent, and optionally
     a pharmaceutically acceptable carrier.  Crosslinked polydiallylamine is a
     highly potent bile acid sequestrant, with in vivo activity greater than
     current com. products.  For example, epichlorohydrin-crosslinked
     polydiallylamine was prepd. and when given to hamster at a daily dose of
     0.10-0.25% in feed it induced fecal excretion of bile acids of 2.19-3.48
     .mu.mol/g, compared to 1.34 .mu.mol/g fecal bile acids with no polymer in
     feed.
IT   7236-47-7, .beta.-Benzalbutyramide
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (combination of polydiallylamine polymer as bile acid sequestrant and
        cholesterol-lowering agent for treating
        hypercholesterolemia and atherosclerosis)
REFERENCE COUNT:          108   THERE ARE 108 CITED REFERENCES AVAILABLE FOR
                                THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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FORMAT

L58 ANSWER 2 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:824114 HCAPLUS
DOCUMENT NUMBER: 134:530
TITLE: Polydiallylamine bile acid sequestrant-hypocholesterolemic agent combination for treating hypercholesterolemia
INVENTOR(S): Huval, Chad Cori; Holmes-Farley, Stephen Randall; Petersen, John S.; Dhal, Pradeep K.
PATENT ASSIGNEE(S): Geltex Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000069445	A1	20001123	WO 1999-US10568	19990513
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9939880	A1	20001205	AU 1999-39880	19990513

PRIORITY APPLN. INFO.: WO 1999-US10568 A 19990513

AB Methods are provide for treating hypercholesterolemia and atherosclerosis, and reducing serum cholesterol in a mammal. The methods of the invention comprise administering to a mammal a first amt. of a bile acid sequestrant compd. which is an unsubstituted polydiallylamine polymer and a second amt. of a cholesterol-lowering agent. The first and second amts. together comprise a therapeutically effective amt. The invention further provides pharmaceutical compns. useful for the treatment of hypercholesterolemia and atherosclerosis, and for reducing serum cholesterol. The pharmaceutical compns. comprise a combination of a first amt. of an unsubstituted polydiallylamine polymer compd. and a second amt. of a cholesterol-lowering agent. The first and second amts. comprise a therapeutically effective amt. The pharmaceutical compns. of the present invention may optionally contain a pharmaceutically acceptable carrier.

IT **7236-47-7**, .beta.-Benzalbutyramide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polydiallylamine bile acid sequestrant-**hypocholesterolemic** agent combination for treating **hypercholesterolemia**)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L58 ANSWER 3 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:601227 HCAPLUS
DOCUMENT NUMBER: 133:296331
TITLE: Synthesis of 3-arylpropenyl, 3-arylpropynyl and 3-arylpropyl 2-azetidinones as cholesterol absorption

inhibitors: application of the palladium-catalyzed arylation of alkenes and alkynes
AUTHOR(S): Rosenblum, Stuart B.; Huynh, Tram; Afonso, Adriano; Davis, Harry R., Jr.
CORPORATE SOURCE: Chemistry Department, Schering-Plough Research Institute, Kenilworth, NJ, 07033, USA
SOURCE: Tetrahedron (2000), 56(31), 5735-5742
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:296331
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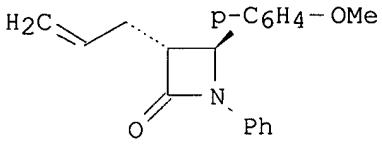

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AB A series of N,2-diaryl-3-(3'-arylpropenyl)-2-azetidinones and N,2-diaryl-3-(3'-arylpropynyl)-2-azetidinones were prepd. by the palladium-catalyzed arylation of I or by arylation of 4-pentenoic acid, or via Et 4-pentynoate followed by 2-azetidinone ring construction. These unsatd. 2-azetidinones were transformed to their satd. analogs by catalytic hydrogenation. These unsatd. and satd. synthesized azetidinones were evaluated for their biol. activity as cholesterol absorption inhibitors in hamsters.
IT **300662-69-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 3-arylpropenyl-, 3-arylpropynyl- and 3-arylpropyl-2-azetidinones as **cholesterol** absorption inhibitors)
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L58 ANSWER 4 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:768050 HCAPLUS
DOCUMENT NUMBER: 130:52236
TITLE: Preparation of dihydroxyphthalic acid diethers as squalene synthase inhibitors, their pharmaceutical uses, and their intermediates
INVENTOR(S): Ichikawa, Yuichiro; Niizuma, Setsuko; Abe, Masatoshi; Takahashi, Wataru; Ikeda, Tatsuji; Takashio, Kazutoshi
PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10316617	A2	19981202	JP 1997-141169	19970516

OTHER SOURCE(S): MARPAT 130:52236

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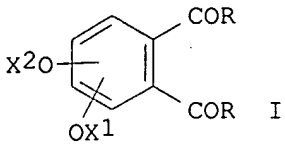

AB The title derivs. I [R = OH: X1, X2 = (un)substituted linear or branched C1-20 (un)satd. aliph. hydrocarbyl, (un)substituted C2-8 alkyloxyalkyl, alkenyloxyalkyl, YZ [Y = (un)substituted C1-8 (hydroxy)alkyl, (un)substituted C2-8 alkyloxyalkyl, (un)substituted C2-8 alkylaminoalkyl; Z = (un)substituted aryl] (II); except the case where X1 = X2 = C1-3 alkyl, benzyl] and/or their pharmaceutically acceptable salts are prepd. by hydrolyzing I [R = OR1, NR2R3; R1-3 = C1-6 alkyl, (un)substituted C7-10 aralkyl; X1, X2 = same as in II]. II and their salts are useful for treatment of infection, hypercholesterolemia, hyperlipemia, or atherosclerosis. IC50 of 3-farnesyloxy-4-[4-(3-phenoxyphenyl)butoxy]phthalic acid (prepn. given) against Aspergillus fumigatus squalene synthase was 0.41 .mu.g/mL. Antifungal activity against A. fumigatus and Candida albicans, and cholesterol formation-inhibiting action of II were also shown.

IT **52121-98-9**, 1-Iodo-6-phenylhexane **99858-37-4**, (5-Iodopentyl)benzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of dihydroxyphthalic acid diethers as squalene synthase inhibitors for treatment of fungal infection and **hypercholesterolemia**)

L58 ANSWER 5 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:660120 HCAPLUS
DOCUMENT NUMBER: 130:3720
TITLE: 2-azetidinone cholesterol absorption inhibitors: increased potency by substitution of the C-4 phenyl ring
AUTHOR(S): Vaccaro, Wayne D.; Sher, Rosy; Davis, Harry R., Jr.
CORPORATE SOURCE: Schering-Plough Research Institute, Kenilworth, NJ, 07033-0539, USA
SOURCE: Bioorganic & Medicinal Chemistry (1998), 6(9), 1429-1437
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
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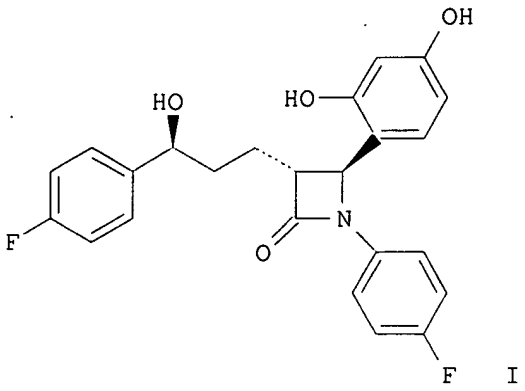

I

AB SAR studies directed towards the optimization of 2-azetidinone cholesterol absorption inhibitors led to the discovery of I, the most potent cholesterol absorption inhibitor yet identified.

IT **20371-41-9**, 5-Phenylvaleryl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(effect of substitution of the C-4 Ph ring on 2-azetidinone **cholesterol** absorption inhibitors)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L58 ANSWER 6 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:632344 HCAPLUS
DOCUMENT NUMBER: 129:330578
TITLE: Beta-lactams derived from the reaction of phenanthridiones and 11H-dibenzo[b,e]azepin-11-one with phenylvaleryl chloride. Synthesis of fused analogs of the cholesterol absorption inhibitor Sch 48461
AUTHOR(S): Afonso, Adriano; Rosenblum, Stuart B.; Puar, Mohindar S.; McPhail, Andrew T.
CORPORATE SOURCE: Schering-Plough Research Institute, Kenilworth, NJ, 07033, USA
SOURCE: Tetrahedron Lett. (1998), 39(41), 7431-7434
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:330578
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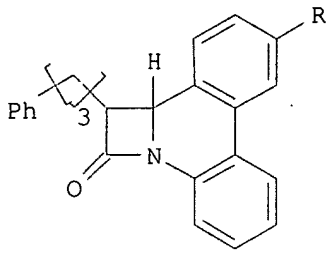

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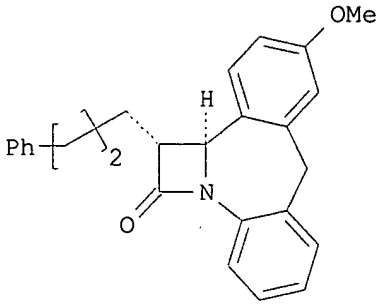


II

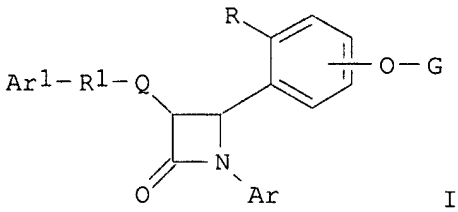
AB Phenanthridine and 9-methoxyphenanthridine and 11H-dibenzo[b,e]azepin-11-one were used as the imine components in the ketene-imine .beta.-lactam synthesis to provide the fused tetracyclic .beta.-lactams (I) (R = H, OMe) and (II).

IT **20371-41-9**, 5-Phenylpentanoyl chloride
RL: RCT (Reactant)
(synthesis of fused analogs of the **cholesterol** absorption inhibitor Sch 48461)

L58 ANSWER 7 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:352625 HCAPLUS
DOCUMENT NUMBER: 129:41376
TITLE: Preparation of sugar-substituted 2-azetidinones useful as hypocholesterolemic agents
INVENTOR(S): Yumibe, Nathan P.; Alton, Kevin B.; Van Heek, Margaret; Davis, Harry R.; Vaccaro, Wayne D.
PATENT ASSIGNEE(S): Schering Corp., USA
SOURCE: U.S., 18 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5756470	A	19980526	US 1996-741179	19961029
CN 1205707	A	19990120	CN 1996-199226	19961029

PRIORITY APPLN. INFO.: US 1996-741179 19961029
OTHER SOURCE(S): MARPAT 129:41376
GI



I

AB Hypocholesterolemic sugar-substituted 2-azetidinones I (R = H, OH, sugar; R1 = alkylene, cycloalkylene, phenylene, alkenylene; G = sugar residue; Q = bond, spiro group; Ar, Ar1 = aryl), are disclosed, as well as a method of lowering cholesterol by administering said compds., pharmaceutical compns. contg. them, and the combination of a sugar-substituted 2-azetidinone cholesterol-lowering agent and a cholesterol biosynthesis inhibitor for the treatment and prevention of atherosclerosis. Thus, 1-O-[4-[trans-(3R,4S)-1-(4-fluorophenyl)-2-oxo-3-[3-[(S)-hydroxy-4-fluorophenylpropyl]]-4-azetidinyl]phenyl]-.beta.-D-glucuronic acid was prepd. as anticholesteremic agent 58 % redn. in plasma cholesterol with 3 mg/kg dose in hamsters.

IT **20371-41-9**, 5-Phenylvaleryl chloride
RL: RCT (Reactant)
(prepn. of sugar substituted azetidinones useful as **hypocholesterolemic** agents)

L58 ANSWER 8 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:168443 HCAPLUS
DOCUMENT NUMBER: 128:291977
TITLE: A novel type of structurally simple nonpeptide inhibitors for .alpha.-chymotrypsin. Induced-fit binding of methyl 2-allyl-3-benzenepropanoate to the S2 subsite pocket
AUTHOR(S): Kim, Dong H.; Li, Zhi-Hong; Lee, Soo Suk; Park, Jeong-Il; Chung, Sang J.
CORPORATE SOURCE: Center for Biofunctional Molecules and Department of Chemistry, Pohang University of Science and Technology, Pohang, 790-784, S. Korea
SOURCE: Bioorg. Med. Chem. (1998), 6(2), 239-249
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Unexpectedly, Me and benzyl esters of 2-allyl-3-benzenepropanoic acid were found to be not substrates but potent competitive inhibitors for .alpha.-chymotrypsin. The inhibitory property of the structurally simple nonpeptidic compds. is ascribed to their high binding affinity to the enzyme at the S2 rather than S1 subsite pocket. These inhibitors exist in a flexible form in soln., but as they bind to the enzyme bulky constrained conformers present in a minute concn. play an important role, forming tighter enzyme inhibitor complexes by binding to the large hydrophobic S2 pocket. The constrained conformers are thought to result from intramol. CH/.pi. interactions between a vinylic proton and the arom. .pi.-electron cloud in the inhibitor mols.

IT **205373-53-1P**
RL: BYP (Byproduct); PREP (Preparation)
(inhibition of .alpha.-**chymotrypsin** by allylbenzenepropanoates)

IT **205373-47-3P 205373-49-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(inhibition of .alpha.-**chymotrypsin** by allylbenzenepropanoates)

L58 ANSWER 9 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:119628 HCAPLUS
DOCUMENT NUMBER: 128:225681
TITLE: Discovery of 1-(4-Fluorophenyl)-(3R)-[3-(4-fluorophenyl)-(3S)-hydroxypropyl]-(4S)-(4-hydroxyphenyl)-2-azetidinone (SCH 58235): A Designed,

Potent, Orally Active Inhibitor of Cholesterol Absorption

AUTHOR(S): Rosenblum, Stuart B.; Huynh, Tram; Afonso, Adriano; Davis, Harry R., Jr.; Yumibe, Nathan; Clader, John W.; Burnett, Duane A.

CORPORATE SOURCE: Department of Discovery Research, Schering-Plough Research Institute, Kenilworth, NJ, 07033-0539, USA

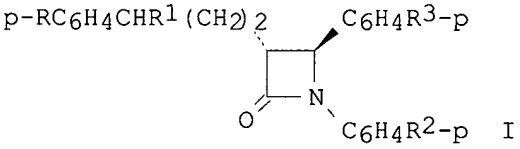
SOURCE: J. Med. Chem. (1998), 41(6), 973-980
CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



I

AB (3R)-(3-Phenylpropyl)-1,(4S)-bis(4-methoxyphenyl)-2-azetidinone, SCH 48461 (I, R = R1 = H, R2 = R3 = OMe), a novel inhibitor of intestinal cholesterol absorption, was recently described by Burnett et al. and demonstrated to lower total plasma cholesterol in man. The potential sites of metab. of SCH 48461 were considered, and the most probable metabolites were prepd. The oral cholesterol-lowering efficacy of the putative metabolites was evaluated in a 7-day cholesterol-fed hamster model for the redn. of serum total cholesterol and liver cholesteryl esters vs. control. The putative metabolite structure-activity relationship (SAR) of 1-(4-fluorophenyl)-(3R)-[3-(4-fluorophenyl)-(3S)-hydroxypropyl]-(4S)-(4-hydroxyphenyl)-2-azetidinone, SCH 58235 (I, R = R2 = F, R1 = .beta.-OH, R3 = OH), was designed to exploit activity enhancing oxidn. and to block sites of potential detrimental metabolic oxidn. A series of congeners of SCH 48461 were prepd. incorporating strategically placed hydroxyl groups and fluorine atoms to further probe the SAR of 2-azetidinone cholesterol absorption inhibitors. Through the SAR anal. of a series of putative metabolites of SCH 48461, compd. SCH 58235 was targeted and found to exhibit remarkable efficacy with an ED50 of 0.04 mg/kg/day for the redn. of liver cholesteryl esters in a 7-day cholesterol-fed hamster model.

IT **20371-41-9**, Benzenepentanoyl chloride
RL: RCT (Reactant)
(prepn. of 1-(4-fluorophenyl)-(3R)-[3-(4-fluorophenyl)-(3S)-hydroxypropyl]-(4S)-(4-hydroxyphenyl)-2-azetidinone (SCH 58235) designed as an inhibitor of **cholesterol** absorption)

L58 ANSWER 10 OF 47 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:761872 HCAPLUS

DOCUMENT NUMBER: 128:30416

TITLE: Use of nonpeptide bradykinin antagonists for treating and preventing chronic fibrogenetic liver diseases, acute liver diseases and complications thereof

INVENTOR(S): Heitsch, Holger; Wagner, Adalbert; Wirth, Klaus; Hropot, Max; Bickel, Martin

PATENT ASSIGNEE(S): Hoechst A.-G., Germany
SOURCE: Eur. Pat. Appl., 36 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 808628	A2	19971126	EP 1997-108096	19970520
EP 808628	A3	19980114		
EP 808628	B1	20000202		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI				
DE 19620509	A1	19971127	DE 1996-19620509	19960522
DE 19632042	A1	19980212	DE 1996-19632042	19960808
DE 19639303	A1	19980326	DE 1996-19639303	19960925
US 5786365	A	19980728	US 1997-858550	19970519
AU 9723511	A1	19971127	AU 1997-23511	19970520
AT 189389	E	20000215	AT 1997-108096	19970520
ES 2144291	T3	20000601	ES 1997-108096	19970520
NO 9702311	A	19971124	NO 1997-2311	19970521
ZA 9704415	A	19971124	ZA 1997-4415	19970521
JP 10045624	A2	19980217	JP 1997-131160	19970521
CN 1176102	A	19980318	CN 1997-113108	19970521
CA 2205780	AA	19971122	CA 1997-2205780	19970522
BR 9703367	A	19980915	BR 1997-3367	19970522

PRIORITY APPLN. INFO.: DE 1996-19620509 A 19960522
DE 1996-19632042 A 19960808
DE 1996-19639303 A 19960925

AB Forty-five heterocyclic compds. are pictured which act as bradykinin antagonists and which can be used in the title syndromes (e.g., liver cirrhosis and liver fibrosis).

IT **199791-52-1**
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**liver** diseases treatment by)

L58 ANSWER 11 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:761871 HCAPLUS
DOCUMENT NUMBER: 128:30415
TITLE: Use of nonpeptide bradykinin antagonists for treating and preventing chronic fibrogenetic liver diseases, acute liver diseases and complications thereof
INVENTOR(S): Heitsch, Holger; Wagner, Adalbert; Wirth, Klaus; Hropot, Max; Bickel, Martin
PATENT ASSIGNEE(S): Hoechst A.-G., Germany
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 808627	A2	19971126	EP 1997-107624	19970509
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,				

SI, FI

DE 19620509	A1	19971127	DE 1996-19620509	19960522
DE 19632042	A1	19980212	DE 1996-19632042	19960808
DE 19639303	A1	19980326	DE 1996-19639303	19960925
US 5786365	A	19980728	US 1997-858550	19970519
AU 9723511	A1	19971127	AU 1997-23511	19970520
AT 189389	E	20000215	AT 1997-108096	19970520
ES 2144291	T3	20000601	ES 1997-108096	19970520
NO 9702311	A	19971124	NO 1997-2311	19970521
ZA 9704415	A	19971124	ZA 1997-4415	19970521
JP 10045624	A2	19980217	JP 1997-131160	19970521
CN 1176102	A	19980318	CN 1997-113108	19970521
CA 2205780	AA	19971122	CA 1997-2205780	19970522
BR 9703367	A	19980915	BR 1997-3367	19970522

PRIORITY APPLN. INFO.: DE 1996-19620509 A 19960522
DE 1996-19632042 A 19960808
DE 1996-19639303 A 19960925

AB Forty-five heterocyclic compds. are pictured which act as bradykinin antagonists and which can be used in the title syndromes (e.g., liver cirrhosis and liver fibrosis).

IT **199791-52-1**
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**liver** diseases treatment by)

L58 ANSWER 12 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:752738 HCAPLUS
DOCUMENT NUMBER: 128:34672
TITLE: Substituted azetidinone compounds useful as hypocholesterolemic agents
INVENTOR(S): Vaccaro, Wayne D.
PATENT ASSIGNEE(S): Schering Corp., USA
SOURCE: U.S., 12 pp. Cont.-in-part of U.S. Ser. No. 261,785, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5688785	A	19971118	US 1995-449973	19950525
AU 9223980	A1	19930223	AU 1992-23980	19920721
AU 658441	B2	19950413		
ZA 9205487	A	19930331	ZA 1992-5487	19920721
EP 596015	A1	19940511	EP 1992-916790	19920721
EP 596015	B1	19971001		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06508637	T2	19940929	JP 1992-502964	19920721
JP 2525125	B2	19960814		
LV 10429	B	19950820	LV 1992-550	19921229
LT 3369	B	19950825	LT 1992-261	19921229
NO 9400221	A	19940121	NO 1994-221	19940121
US 5688787	A	19971118	US 1996-588785	19960119

PRIORITY APPLN. INFO.: US 1991-734426 B2 19910723
US 1991-734652 B2 19910723
US 1994-178312 B2 19940111
US 1994-261785 B2 19940620

WO 1992-US5972 A 19920721
OTHER SOURCE(S): MARPAT 128:34672
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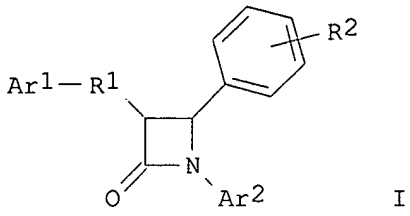

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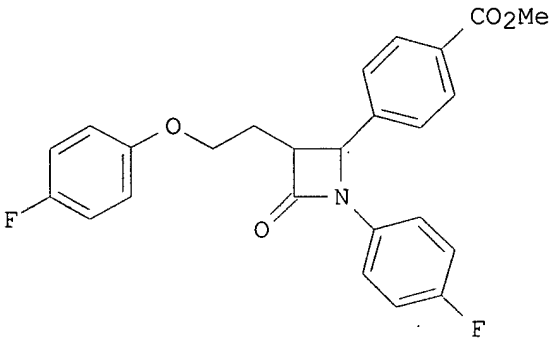

II

AB Substituted azetidinone hypocholesterolemic agents I and their pharmaceutically acceptable salts are disclosed [wherein: Ar1 = aryl or R3-substituted aryl; Ar2 = aryl or R4-substituted aryl; R1 = (CH2)2-6, (CH2)eZ(CH2)r (wherein Z = O, CO, C6H4, NR10, or S(O)0-2, e = 0-5, and r = 0-5, provided that (e + r) = 1-6), C2-6 alkenylene, and (CH2)fV(CH2)g (wherein V = C3-6 cycloalkylene, f = 1-5, and g = 0-5, provided that (f + g) = 1-6); R2 = alkylene-COR5 or CH:CHCOR5; R3, R4 = 1-3 substituents chosen from alkyl, OR6, OCOR6, OCOOR9, O(CH2)1-5OR6, OCONR6R7, NR6R7, NR6COR7, NR6CO2R9, NR6CONR7R8, NR6SO2R9, COOR6, CONR6R7, COR6, SO2NR6R7, S(O)0-2R9, O(CH2)1-10COOR6, O(CH2)1-10CONR6R7, alkylene-COOR6, CH:CHCO2R6, CF3, CN, NO2, and halo; R5 = OR or NRR12 (wherein R and R12 = H, alkyl, aryl, and aralkyl); R6, R7, R8 = H, lower alkyl, aryl, and aralkyl; R9 = alkyl, aryl, or aralkyl; R10 = H, alkyl, aralkyl, or COR6]. I are cholesterol absorption inhibitors, which may be used (no data) in combination with cholesterol biosynthesis inhibitors. For example, Me 4-formylbenzoate was condensed with 4-FC6H4NH2 in PhMe under Dean-Stark conditions, and the resulting imine was cyclized in situ with 4-FC6H4O(CH2)3COCl in the presence of Bu3N at reflux to give an 8:1 trans/cis mixt. of azetidinone II. The mixt. was sepd. into the pure isomers by HPLC. At 50 mg/kg orally in hamsters, trans-II gave 28% redn. of serum cholesterol, and 76% redn. of cholesterol esters.

IT **20371-41-9**, 5-Phenylvaleryl chloride
RL: RCT (Reactant)
(prepn. of substituted azetidinones as **hypocholesterolemic** agents)

L58 ANSWER 13 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:53684 HCAPLUS
DOCUMENT NUMBER: 126:74591
TITLE: Preparation of biphenylyloxyalkylarenes as leukotriene antagonists for the treatment or prevention of Alzheimer's disease.
INVENTOR(S): Altstiel, Larry Douglas; Fleisch, Jerome Herbert
PATENT ASSIGNEE(S): Lilly, Eli, and Co., USA
SOURCE: Eur. Pat. Appl., 124 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 743064	A1	19961120	EP 1996-303346	19960513
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
WO 9636347	A1	19961121	WO 1996-US6773	19960513
W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM				
RW: KE, LS, MW, SD, SZ, UG, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9658572	A1	19961129	AU 1996-58572	19960513

PRIORITY APPLN. INFO.: US 1995-443179 19950517
WO 1996-US6773 19960513
OTHER SOURCE(S): MARPAT 126:74591
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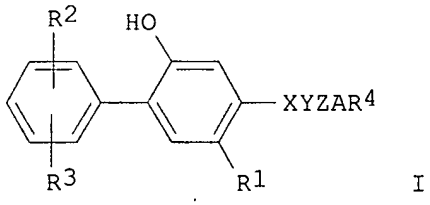

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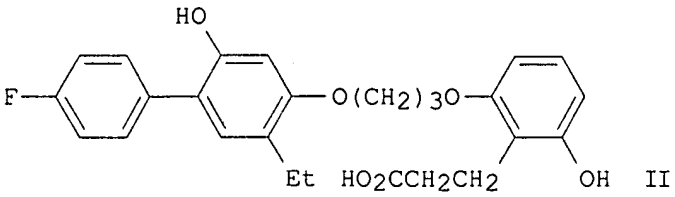


II

AB Use of compds. having leukotriene antagonist activity, e.g., title compds. [I; R1 = alkyl, alkenyl, alkynyl, alkoxy, alkylthio, halo, R2-substituted Ph; R2, R3 = H, halo, OH, alkyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, CF3, dialkylamino; X = O, S, CO, CH2; Y = O, CH2; XY =

CH:CH, C.tplbond.C; Z = alkylene; A = bond, O, S, CH:CH, etc.; R4 = (substituted) (hetero)aryl; with provisos] for manuf. of a medicament for treating or preventing Alzheimer's disease is claimed. Thus, 5-hydroxybenzopyran-2-one and 3-(2-ethyl-4-(4-fluorophenyl)-5-benzyloxyphenyl)propyl iodide were stirred with NaH in Me2SO to give 5-[3-(2-ethyl-4-(4-fluorophenyl)-5-benzyloxyphenyl)propoxy]benzopyran-2-one. This was converted to title compd. (II), which displaced [3H]-LTB4 from guinea pig lung membrane prepns. with pKi = 9.01. I drug formulations are given.

IT **14377-66-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of biphenylyloxyalkylarenes as leukotriene antagonists for the treatment or prevention of **Alzheimer**'s disease)

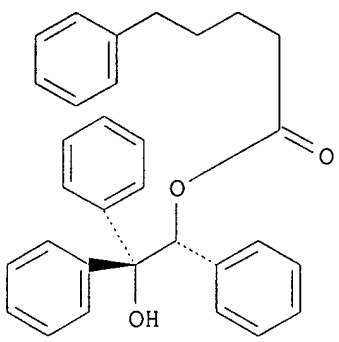
L58 ANSWER 14 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:513507 HCAPLUS
DOCUMENT NUMBER: 125:131668
TITLE: 2-Azetidinone Cholesterol Absorption Inhibitors: Structure-Activity Relationships on the Heterocyclic Nucleus
AUTHOR(S): Clader, John W.; Burnett, Duane A.; Caplen, Mary Ann; Domalski, Martin S.; Dugar, Sundeep; Vaccaro, Wayne; Sher, Rosy; Browne, Margaret E.; Zhao, Hongrong; et al.
CORPORATE SOURCE: Schering-Plough Research Institute, Kenilworth, NJ, 07033-0539, USA
SOURCE: J. Med. Chem. (1996), 39(19), 3684-3693
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of azetidinone cholesterol absorption inhibitors related to SCH 48461 was prepd., and evaluated for their ability to inhibit hepatic cholesteryl ester formation in a cholesterol-fed hamster model. Although originally designed as acyl CoA:cholesterol acyltransferase (ACAT) inhibitors, comparison of in vivo potency with in vitro activity in a microsomal ACAT assay indicates no correlation between activity in these 2 models. The mol. mechanism by which these compds. inhibit cholesterol absorption is unknown. Despite this limitation, examn. of the in vivo activity of a range of compds. has revealed clear structure-activity relationships consistent with a well-defined mol. target. The details of these structure-activity relationships and their implications on the nature of the putative pharmacophore are discussed.

IT **20371-41-9**, 5-Phenylpentanoyl chloride
RL: RCT (Reactant)
(structure-activity relations of azetidinone **cholesterol** absorption inhibitors)

L58 ANSWER 15 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:479041 HCAPLUS
DOCUMENT NUMBER: 125:167712
TITLE: A simple stereoselective synthesis of the cholesterol absorption inhibitor (-)-SCH 48461
AUTHOR(S): Braun, Manfred; Galle, Dietmar
CORPORATE SOURCE: Institut Organische Chemie Makromolekulare Chemie, Universitaet Duesseldorf, Duesseldorf, D-40225, Germany
SOURCE: Synthesis (1996), (7), 819-820
CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:167712
GI



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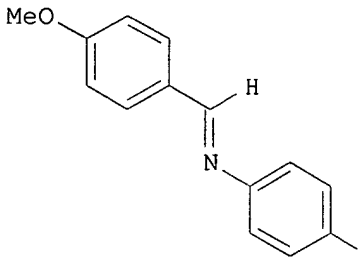


III

AB The cholesterol absorption inhibitor I is synthesized in 91% ee by a stereoselective condensation of doubly deprotonated ester II and imine III. The optical purity of the trans-diastereomer obtained as the major isomer (trans/cis, 94:6) is enhanced to > 98% ee by a single recrystn.

IT **20371-41-9**, Benzenepentanoyl chloride
RL: RCT (Reactant)
(prepn. of **cholesterol** absorption inhibitor (-)-SCH 48461)

L58 ANSWER 16 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:441078 HCAPLUS
DOCUMENT NUMBER: 125:184776
TITLE: In vitro metabolism of a potent HIV-protease inhibitor (141W94) using rat, monkey and human liver S9
AUTHOR(S): Singh, Rominder; Chang, Sai Y.; Taylor, Lester C. E.
CORPORATE SOURCE: Bioanalysis and Drug Metabolism, Glaxo Wellcome Inc., Research Triangle Park, NC, 27709, USA
SOURCE: Rapid Commun. Mass Spectrom. (1996), 10(9), 1019-1026
CODEN: RCMSEF; ISSN: 0951-4198
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Compd. 141W94 (Vertex VX478) (3S)-tetrahydro-3-furyl N-[(S,2R)-3-(4-amino-N-isobutylbenzenesulfonamido)-1-benzyl-2-hydroxypropyl] carbamate, is a potent HIV-protease inhibitor and is currently undergoing clin. trials. The purpose of this study was the rapid identification of the phase I and II in vitro metabolite of 141W94 using mass spectrometry. Four different sources of liver S9 fractions were used for studying comparative in vitro metab. of 141W94. They were obtained from Arochlor-induced rat, normal (untreated) rat, cynomolgus monkey and human livers. Selected incubations were supplemented with uridine diphosphate glucuronic acid and the reduced form of glutathione. The predominant species seen in the incubation mixt. was the parent compd. 141W94. Metabolites arising from ring opening to form the diol and carboxylic acid and oxidn. of the THF ring (formation of dihydrofuran) were identified. In addn., of the two monohydroxylated products identified, one resulted from hydroxylation on the aniline ring and the other from hydroxylation at the benzylic position. Two different glucuronides were also obsd. Comparing the three species, very little metab. was seen in the normal (non-induced) rat. The metabolic profile

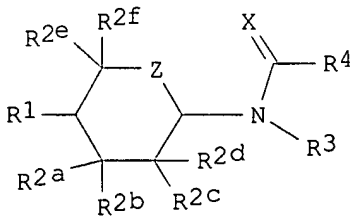
and extent of metab. with induced rat, monkey and human S9 was similar. Induced rat S9 incubation showed the formation of two unique metabolites that were not seen in non-induced rat, monkey and human S9 fractions. They were the monohydroxylated glucuronide and a carbamate cleavage product. The metabolites were identified using mass spectrometry based on their mol. masses and fragmentation patterns.

IT **180728-05-6**
RL: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(In vitro metab. of a potent HIV-protease inhibitor (141W94) using rat, monkey and human **liver** S9)

L58 ANSWER 17 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:425252 HCAPLUS
DOCUMENT NUMBER: 125:86319
TITLE: Preparation and formulation of N-(4-phenylcyclohexyl)alkanamides and analogs as cholesterol biosynthesis inhibitors
INVENTOR(S): Maier, Roland; Mueller, Peter; Woitun, Eberhard; Hurnaus, Rudolf; Mark, Michael; Eisele, Bernhard; Budzinski, Ralph-Michael
PATENT ASSIGNEE(S): Dr. Karl Thomae GmbH, Germany
SOURCE: Ger. Offen., 40 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4437999	A1	19960502	DE 1994-4437999	19941025

OTHER SOURCE(S): MARPAT 125:86319
GI



I

AB Title compds. [I; R1 = substituted Ph, pyridyl, pyrimidinyl, etc.; Z = (CR2hR2g)n; R2a-R2h = H, alk(en)yl; R3 = alk(en)yl, alkynyl, Ph, cyclohexyl(methyl); R4 = (O- or S-interrupted) alkyl, alkenyl, phenyl(alkyl), etc.; X = O, S, NPh, NSO2C6H4Me-4; n = 0 or 1] were prepd. Thus, I, e.g., prepd. 4-[4-(2-diethylaminoethoxy)-3-methylphenyl]-N-hexanoyl-N-methylcyclohexylamine gave .gtoreq.50% inhibition of cholesterol biosynthesis in human hepatoma cells at 10-6M in vitro.

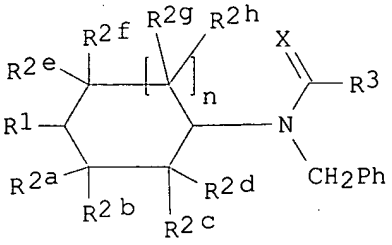
IT **178540-24-4P 178540-37-9P 178540-64-2P**
178541-15-6P 178541-89-4P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic

preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and formulation of N-(4-phenylcyclohexyl)alkanamides and analogs as **cholesterol** biosynthesis inhibitors)

L58 ANSWER 18 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:404621 HCAPLUS
DOCUMENT NUMBER: 125:58115
TITLE: Preparation of N-benzyl-N-acylcycloalkylamine-derivative cholesterol biosynthesis inhibitors
INVENTOR(S): Maier, Roland; Woitun, Eberhard; Mueller, Peter; Hurnaus, Rudolf; Mark, Michael; Eisele, Bernhard; Budzinski, Ralph-Michael
PATENT ASSIGNEE(S): Dr. Karl Thomae GmbH, Germany
SOURCE: Ger. Offen., 31 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4438055	A1	19960502	DE 1994-4438055	19941025

OTHER SOURCE(S): MARPAT 125:58115
GI



I

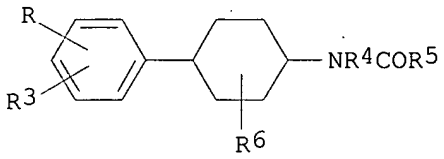
AB The title compds. [I; R1 = (un)branched alkyl, PhCH2, (un)substituted Ph, naphthyl, heterocyclyl, etc.; R2a-R2h = H, alkyl, allyl; R3 = H, (un)branched (un)substituted alkyl, (un)substituted alkenyl, etc.; X = O, S, (un)substituted NH; n = 0-1], useful as cholesterol biosynthesis inhibitors (no data) via the inhibition of HMG-CoA reductase (no data), useful for the treatment of hyperlipidemia (no data) and atherosclerosis (no data), are prepd. and I-contg. formulations presented. Thus, trans-N-benzyl-4-(4-methoxy-3-methylphenyl)cyclohexylamine was amidated with hexanoyl chloride, producing trans-N-benzyl-N-hexanoyl-4-(4-methoxy-3-methylphenyl)cyclohexylamine in 96.3% theor. yield.
IT **178365-08-7P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of N-benzyl-N-acylcycloalkylamine-deriv. **cholesterol** biosynthesis inhibitors)

L58 ANSWER 19 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:388195 HCAPLUS
DOCUMENT NUMBER: 125:58083

TITLE: Preparation of N-acylphenylcyclohexylamines as cholesterol biosynthesis inhibitors
INVENTOR(S): Maier, Roland; Woitun, Eberhard; Mueller, Peter; Hurnaus, Rudolf; Mark, Michael; Eisele, Bernhard; Budzinski, Ralph-Michael
PATENT ASSIGNEE(S): Dr. Karl Thomae GmbH, Germany
SOURCE: Ger. Offen., 24 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4438020	A1	19960502	DE 1994-4438020	19941025

OTHER SOURCE(S): MARPAT 125:58083
GI



I

AB Title compds. [I; R = (CH2)nNR1R2; R1,R2 = H, alkyl, acyl; NR1R2 = pyrrolidino, piperidino, morpholino; R3,R6 = H or alkyl; R4 = (cyclo)alkyl, allyl; Ph, etc.; R5 = (phenyl)alk(en)yl, cycloalkyl, Ph, naphthyl, etc.; n = 0-3]. Thus, trans-N-acetyl-N-benzyl-4-(4-diethylaminomethylphenyl)cyclohexylamine, e.g., gave >50% inhibition of cholesterol biosynthesis in human hepatoma cells in vitro.
IT **178162-88-4P 178163-33-2P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of N-acylphenylcyclohexylamines as **cholesterol** biosynthesis inhibitors)

L58 ANSWER 20 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:214748 HCAPLUS
DOCUMENT NUMBER: 124:316969
TITLE: Substituted azetidinone compounds useful as hypocholesterolemic agents
INVENTOR(S): Vaccaro, Wayne
PATENT ASSIGNEE(S): Schering Corp., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

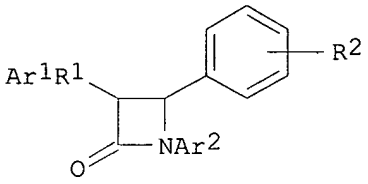
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9535277	A1	19951228	WO 1995-US7117	19950615	
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, UZ, VN					
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
CA 2191455	AA	19951228	CA 1995-2191455	19950615	
AU 9529430	A1	19960115	AU 1995-29430	19950615	
EP 766667	A1	19970409	EP 1995-925237	19950615	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE					
JP 10501811	T2	19980217	JP 1995-502289	19950615	

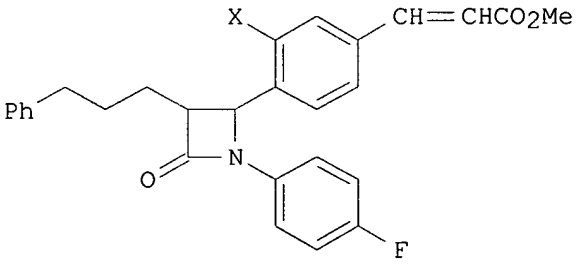
PRIORITY APPLN. INFO.: US 1994-261785 A 19940620
WO 1995-US7117 W 19950615

OTHER SOURCE(S): MARPAT 124:316969

GI



I



II

AB Substituted azetidinone hypocholesterolemic agents are disclosed, specifically I and their pharmaceutically acceptable salts [wherein Ar1, Ar2 = (un)substituted aryl; R1 = (CH2)q, (CH2)eZ(CH2)r, C2-6 alkenylene, (CH2)fV(CH2)g; q = 2-6; Z = O, CO, C6H4, NR10, S(O)0-2; e, r = 0-5, provided that (e + r) = 1-6; V = C3-6 cycloalkylene; f = 1-5; g = 0-5, provided that (f + g) = 1-6; R2 = (lower alkylene)COR5 or (CH:CH)COR5; R5 = OR or NRR12; R, R12 = H, alkyl, aryl, aralkyl; R10 = H, alkyl, aralkyl or acyl]. Also disclosed are a method of lowering serum cholesterol by administering I or salts, alone or in combination with a cholesterol biosynthesis inhibitor, and pharmaceutical compns. contg. I. Examples include 16 syntheses, 2 formulations, and a bioassay. For instance, Pd(PPh3)4-catalyzed coupling of trans-1-(4-fluorophenyl)-3-(3-phenylpropyl)-4-(4-bromo-2-benzyloxyphenyl)-2-azetidinone with Me acrylate in the presence of Et3N at 80.degree. gave 48% title compd. trans-II (X = PhCH2O). The similarly prepd. compd. trans-II (X = H), at a dose of 10 mg/kg orally in hyperlipidemic hamsters, gave a 21% redn. in serum cholesterol, and a 48% redn. in cholesterol esters.

IT **20371-41-9**, 5-Phenylvaleryl chloride

RL: RCT (Reactant)
(starting material; prepn. of azetidinone derivs. as **hypocholesterolemics**)

L58 ANSWER 21 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:110119 HCAPLUS
DOCUMENT NUMBER: 124:169116
TITLE: Irreversible inhibitions of serine proteases by peptidyl allylic halide derivatives
AUTHOR(S): Ohba, Tsuyoshi; Ikeda, Eitatsu; Wakayama, Jun; Takei, Hisashi
CORPORATE SOURCE: Interdisciplinary Grad. Sch. Sci. Eng., Tokyo Inst. Technol., Yokohama, 226, Japan
SOURCE: Bioorg. Med. Chem. Lett. (1996), 6(3), 219-24
CODEN: BMCLE8; ISSN: 0960-894X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Peptidyl 4-amino-5-phenyl-2-pentenyl bromide and chloride derivs. were active-site directed irreversible inhibitors of .alpha.-chymotrypsin but did not show any irreversible inhibitory activity toward porcine pancreatic elastase.
IT **173866-63-2P 173866-64-3P 173866-67-6P**
173866-68-7P 173866-69-8P 173866-70-1P
173866-71-2P 173866-72-3P 173866-73-4P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(irreversible inhibition of .alpha.-**chymotrypsin** by phenylalanine-based peptidyl allylic halides)
IT **116246-06-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(irreversible inhibition of .alpha.-**chymotrypsin** by phenylalanine-based peptidyl allylic halides)

L58 ANSWER 22 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:403385 HCAPLUS
DOCUMENT NUMBER: 122:151403
TITLE: Treatment of amyloidosis associated with Alzheimer disease using modulators of protein phosphorylation
INVENTOR(S): Buxbaum, Joseph D.; Gandy, Samuel E.; Greengard, Paul
PATENT ASSIGNEE(S): The Rockefeller University, USA
SOURCE: U.S., 29 pp. Cont.-in-part of U.S. 5,242,932.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5385915	A	19950131	US 1993-73112	19930607
US 5242932	A	19930907	US 1991-809174	19911217
US 5538983	A	19960723	US 1994-236411	19940429
PRIORITY APPLN. INFO.:			US 1990-524202	19900516
			US 1991-809174	19911217
			US 1993-73112	19930607

AB A method is disclosed for regulating phosphorylation of proteins involved in controlling processing or function of key proteins found in intracellular neurofibrillary tangles and extracellular amyloid plaques assocd. with Alzheimer disease, comprising introducing an effective amt.

of a kinase modulator or phosphatase modulator, the modulator capable of increasing or decreasing the rate of proteolytic processing, or modulating the function, of said key proteins. A cell/tissue culture method for screening agents modulating amyloid formation is also disclosed. The effects of e.g. okadaic acid on the prodn. of APPS, the secreted form of amyloid precursor protein, were opposite to those obsd. for .beta./A4 peptide. The reciprocal effects of increased protein phosphorylation on APPS prodn. and .beta./A4 peptide prodn. are consistent with the idea that APPs and .beta./A4 peptide may be derived form 2 competing pathways of APP metab.

IT **34807-41-5**, Mezerein
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein phosphorylation modulators for **Alzheimer** disease-assocd. amyloidosis treatment)

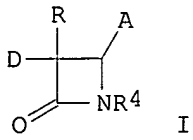
L58 ANSWER 23 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:517027 HCAPLUS
DOCUMENT NUMBER: 119:117027
TITLE: Substituted beta-lactam compounds useful as hypocholesterolemic agents and processes for their preparation
INVENTOR(S): Burnett, Duane A.; Clader, John W.; Thiruvengadam, Tiruvettipuram K.; Tann, Chou Hong; Lee, Junning; McAllister, Timothy; Colon, Cesar; Barton, Derek H. R.; Breslow, Ronald; et al.
PATENT ASSIGNEE(S): Schering Corp., USA
SOURCE: Eur. Pat. Appl., 98 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 524595	A1	19930127	EP 1992-112425	19920721
R: PT				
CA 2114007	AA	19930204	CA 1992-2114007	19920721
WO 9302048	A1	19930204	WO 1992-US5972	19920721
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
AU 9223980	A1	19930223	AU 1992-23980	19920721
AU 658441	B2	19950413		
ZA 9205487	A	19930331	ZA 1992-5487	19920721
EP 596015	A1	19940511	EP 1992-916790	19920721
EP 596015	B1	19971001		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06508637	T2	19940929	JP 1992-502964	19920721
JP 2525125	B2	19960814		
HU 67341	A2	19950328	HU 1994-185	19920721
AT 158789	E	19971015	AT 1992-916790	19920721
ES 2107548	T3	19971201	ES 1992-916790	19920721
CN 1069024	A	19930217	CN 1992-108760	19920722
LV 10429	B	19950820	LV 1992-550	19921229
LT 3369	B	19950825	LT 1992-261	19921229
NO 9400221	A	19940121	NO 1994-221	19940121

PRIORITY APPLN. INFO.: US 1991-734426 A 19910723

US 1991-734652 A 19910723
WO 1992-US5972 A 19920721

OTHER SOURCE(S): MARPAT 119:117027
GI



I

AB Title compds. I (A = BCH:CH, BC.tplbond.C, BX(CH2)p wherein B = (substituted) Ph; X = bond, NH, S(O)p, (substituted) heteroaryl, (substituted) benzofused heteroaryl, (substituted) piperazinyl(alkyl), etc., p = 0-2; R = H, F, C1-15 alkyl, C1-15 alkenyl, C1-15 alkynyl, B(CH2)h wherein h = 0-3, etc.; D = B'(CH2)mCO, B'(CH2)q, B'(C2-6 alkenylene, etc. wherein B' = naphthyl, (substituted) Ph, m = 1-5, q = 2-6; R4 = substituted Ph, heterocyclyl) or a salt thereof, are prepd. (Me2CH)2NLi was added to Et 5-phenylvalerate in THF, followed by 4-methoxybenzylideneanisidine in CH2Cl2 to give the title (.+-.)-I (A = R4 = 4-(MeO)C6H4, R = H, D = PhCH2CH2CH2) (II). In hyperlipidemic hamsters, II at 50 mg/kg showed a redn. of serum cholesterol and cholesterol esters of 45 and 95%, resp. Capsule and tablet formulations comprising I are given.

IT **20371-41-9**, Benzenepentanoyl chloride
RL: RCT (Reactant)
(reaction of, in prepn. of .beta.-lactam **hypocholesterolemics**
)

L58 ANSWER 24 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:446258 HCAPLUS
DOCUMENT NUMBER: 119:46258
TITLE: Protein kinase C-mediated pulmonary vasoconstriction in rabbit: Role of calcium, AA metabolites, and vasodilators
AUTHOR(S): Michael, John R.; Yang, Jianing; Farrukh, Imad S.; Gurtner, Gail H.
CORPORATE SOURCE: Med. Serv., Veterans Aff. Med. Cent., Salt Lake City, UT, 84132, USA
SOURCE: J. Appl. Physiol. (1993), 74(3), 1310-19
CODEN: JAPHEV; ISSN: 8750-7587
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of 3 chem. distinct protein kinase C activators on pulmonary vascular tone were studied in the buffer-perfused isolated rabbit lung. The 3 activators: 12-deoxyphorbol 13-isobutyrate (12,13-phorbol), mezerein, and 1-oleoyl-2-acetyl-sn-glycerol, produce concn.-dependent increases in pulmonary arterial pressure, whereas the inactive compd. 4.alpha.-phorbol 12,13-dibutyrate does not affect pulmonary arterial pressure. Reducing Ca availability with verapamil, a Ca-free buffer, or a chelator of intracellular Ca decreases the response to 12,13-phorbol or mezerein. Pretreatment with phloretin, an inhibitor of protein kinase C, has no affect on the vasoconstriction caused by infusion of a KCl bolus, but it does inhibit in a dose-dependent manner the response to 12,13-phorbol and mezerein. 12,13-Phorbol at a concn. of 2.5 .mu.M, but not of 1 .mu.M, stimulates prostacyclin and thromboxane synthesis by the

isolated lung. Because inhibitors of thromboxane synthesis decrease the response, thromboxane likely contributes to the vasoconstriction produced by higher concns. of 12,13-phorbol and mezerein. Pretreatment with isoproterenol or nitroprusside reduces the increase in pulmonary arterial pressure caused by the protein kinase C activators but does not reverse vasoconstriction, even though subsequent treatment with verapamil does. In summary: activating protein kinase C in the isolated rabbit lung causes long-lasting pulmonary vasoconstriction, reducing Ca availability decreases the response, part of the increase in pulmonary arterial pressure appears secondary to thromboxane generation, and pretreatment with isoproterenol or nitroprusside prevents the vasoconstriction, but posttreatment with these vasodilators is ineffective.

IT **34807-41-5**, Mezerein
RL: BIOL (Biological study)
(**lung** vasoconstriction induction by, protein kinase C activation in relation to)

L58 ANSWER 25 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:143419 HCAPLUS
DOCUMENT NUMBER: 116:143419
TITLE: Different susceptibility of lung cell lines to inhibitors of tumor promotion and inducers of differentiation
AUTHOR(S): Zhu, H. G.; Tayeh, I.; Israel, L.; Castagna, M.
CORPORATE SOURCE: IRSC Lab., Villejuif, Fr.
SOURCE: J. Biol. Regul. Homeostatic Agents (1991), 5(2), 52-8
CODEN: JBRAER; ISSN: 0393-974X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Histolog. distinct lung tumor and normal cell lines were treated with a variety of potential inhibitors of cell growth such as inducers of cell differentiation, inhibitors of protein kinase C and inhibitors of tumor promotion. The response was assessed by [3H] thymidine incorporation and cloning efficiency. Both phorbol retinoate acetate and mezerein stimulated growth in lung normal cell lines (human fibroblastic PEH cells and rat epithelial TP9 cells) while inhibiting growth in lung tumor cell lines (human small-cell cancer-derived cell line IRSC-10M and adenocarcinoma-derived cell line A549). Likewise, the hydrophobic peptide melittin did not inhibit growth and cloning efficiency of normal cells at 1 .mu.M, a concn. which prevented proliferation in tumor cells. Protein kinase C inhibitors, chlorpromazine, trifluoperazine and 1-(5-isoquinolinylsulfonyl) 2-methylpiperazine, were much more effective on proliferation of IRSC-10M than of A549 cells. In contrast, the latter cells were more susceptible to anti-promoters such as glycyrrhetic acid, an antiinflammatory agent, and 3,4,2',4'-tetrahydroxychalcone or 2,3,5-trimethyl-6(12-hydroxy-5,10-dodecadiynyl)-1,4-benzoquinone, two inhibitors of lipoxygenase, a key enzyme in arachidonate metab. These results provide evidence that small-cell carcinoma-derived cells, in contrast with adenocarcinoma-derived cells, are growth-inhibited by protein kinase C inhibitors and poorly dependent on the arachidonate metab. This difference in responsiveness suggests that different growth signalling pathways are preferentially triggered in these histol. distinct lung tumor cell lines. As a consequence, the proper susceptibility of tumor cells to phenotype modifiers has to be taken into account in cancer therapy.

IT **34807-41-5**, Mezerein
RL: BIOL (Biological study)
(**lung** tumor cells of humans and lab. animals susceptibility to)

L58 ANSWER 26 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:120903 HCAPLUS
DOCUMENT NUMBER: 116:120903
TITLE: Use of a modulator of protein phosphorylation in the treatment of amyloidosis associated with Alzheimer's disease
INVENTOR(S): Buxbaum, Joseph D.; Gandy, Samuel E.; Greengard, Paul
PATENT ASSIGNEE(S): Rockefeller University, USA
SOURCE: Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 457295	A2	19911121	EP 1991-107844	19910515
EP 457295	A3	19920805		
EP 457295	B1	19970409		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 07025786	A2	19950127	JP 1991-136925	19910514
CA 2042668	AA	19911117	CA 1991-2042668	19910515
AT 151287	E	19970415	AT 1991-107844	19910515
ES 2102986	T3	19970816	ES 1991-107844	19910515

PRIORITY APPLN. INFO.: US 1990-524202 19900516
AB Disclosed is the use of .gtoreq.1 kinase modulator or phosphatase modulator capable of increasing or decreasing the rate of proteolytic processing of proteins found in intracellular neurofibrillary tangles and extracellular amyloid plaques for the prepn. of a pharmaceutical for the treatment of amyloidosis assocd. with Alzheimer's disease. The pharmaceutical contains the modulator in an amt. effectively regulating phosphorylation of the proteins.
IT **34807-41-5**
RL: BIOL (Biological study)
(as kinase stimulator, for treatment of amyloidosis assocd. with **Alzheimer**'s disease)

L58 ANSWER 27 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:456233 HCAPLUS
DOCUMENT NUMBER: 113:56233
TITLE: Selective inactivation of peroxisomal and cytosolic 3-ketothiolase IB by 2-chloro-6-phenylhexanoate in intact hepatocytes
AUTHOR(S): Sephton, Gregory B.; Lowenstein, John M.
CORPORATE SOURCE: Grad. Dep. Biochem., Brandeis Univ., Waltham, MA, 02254-9110, USA
SOURCE: J. Biol. Chem. (1990), 265(16), 9214-20
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Rat liver mitochondria and cytosol contain 2 types of 3-ketothiolases, namely 3-ketothiolases IA and IB, which cleave 3-ketoacyl-CoA (CoA) esters contg. .gtoreq.4 atoms and 3-ketothiolases IIA and IIB, which cleave 3-ketoacyl-CoA esters contg. 4 C atoms, i.e. acetoacetyl-CoA. Rat liver peroxisomes also contain 3-ketothiolases IA and IB and show that incubation of hepatocytes with 2-chloro-6-phenylhexanoate causes the selective inactivation of peroxisomal and cytosolic 3-ketothiolase IB,

whereas mitochondrial 3-ketothiolases are not appreciably affected. The basis of the selectivity of the inhibitor for peroxisomal and cytosolic 3-ketothiolases can be accounted for in terms of the specificities of the enzymes in the different pathways of .beta.-oxidn. Evidence is presented that 2-chloro-6-phenylhexanoate is metabolized to 2-chloro-3-oxo-6-phenylhexanoyl-CoA, which then alkylates 3-ketothiolase and thereby inactivates the enzyme. Evidence is presented which suggests that cytosolic 3-ketothiolases IA and IB are not artifacts of homogenization and organelle prepn.

IT **128409-67-6**
RL: BIOL (Biological study)
(ketothiolase of **liver** cytosol and peroxisome inhibition by)

IT **128409-68-7**
RL: BIOL (Biological study)
(ketothiolase of **liver** cytosol and peroxisome inhibition by chlorophenylhexanoate mediation by)

L58 ANSWER 28 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:147312 HCAPLUS
DOCUMENT NUMBER: 110:147312
TITLE: Effects of activators of protein kinase C, including bryostatins 1 and 2, on the growth of A549 human lung carcinoma cells
AUTHOR(S): Dale, Ian L.; Gescher, Andreas
CORPORATE SOURCE: Pharm. Sci. Inst., Aston Univ., Birmingham, B4 7ET, UK
SOURCE: Int. J. Cancer (1989), 43(1), 158-63
CODEN: IJCNAW; ISSN: 0020-7136
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Phorbol esters inhibit the growth of A549 human lung carcinoma cells at non-toxic concns., whereas 1-oleoyl-2-acetylglycerol and 1,2-dioctanoylglycerol, synthetic analogs of the physiol. ligands of protein kinase C (PKC), do not. Expts. were conducted to test the hypothesis that other activators of PKC are capable of interfering with A549 cell growth. The non-phorboid tumor promoter mezerein mimicked the growth-inhibitory effect of TPA in that it arrested growth for 5 days, after which cells proliferated again in the presence of TPA. TPA was 20 times more potent as a growth inhibitor than mezerein. Bryostatin 1 at 10 nM and bryostatin 2 at 100 nM also arrested A549 cell growth and inhibited DNA replication as measured by incorporation of [Me-3H]-thymidine into cells. Inhibition of DNA synthesis to 75-90% of control values developed during the first hour of incubations of the cells with TPA, mezerein or bryostatins. The extent of inhibition changed little during the subsequent 5 h of incubation, after which it increased further to reach maximal values within 12 h. At concns. above those which caused maximal growth inhibition, the bryostatins abolished both their own inhibition of DNA synthesis and the anti-replicative effect of TPA and mezerein. Thus, activators of PKC other than phorbol esters are capable of inhibiting the growth of A549 cells. The bryostatins not only interfere with A549 cell growth but can also counter the growth-inhibitory effect of PKC activators, presumably via interaction with a target different from the phorbol ester receptor site.

IT **34807-41-5**, Mezerein
RL: BIOL (Biological study)
(**lung** carcinoma growth of human inhibition by, as protein kinase C activator)

L58 ANSWER 29 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:69933 HCAPLUS

DOCUMENT NUMBER: 110:69933
TITLE: Platelet-activating factor stimulates arachidonic acid metabolism in rat liver cells (C-9 cell line) by a receptor-mediated mechanism
AUTHOR(S): Levine, Lawrence
CORPORATE SOURCE: Dep. Biochem., Brandeis Univ., Waltham, MA, 02254, USA
SOURCE: Mol. Pharmacol. (1988), 34(6), 793-9
CODEN: MOPMA3; ISSN: 0026-895X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Platelet-activating factor (PAF) stimulated prodn. of PGI2, PGE2, and PGF2.alpha., by rat liver cells (the C-9 cell line); as little as 0.2 nM PAF was effective. Enantio-PAF was 1000-fold less effective. Lyso-PAF, at 0.1-1.0 .mu.M, did not stimulate PGI2 prodn. The synthesis of PGI2 was essentially complete in 10 min. The stimulation by PAF of PGI2 prodn. was inhibited by the PAF antagonists L 659989, kadsurenone, L 652731, and BN 52021; the values for 50% inhibition (IC50) were 0.02, 0.19, 0.21, and 0.73 .mu.M, resp. The antagonists L 659989 and BN 52021 had no effect on the levels of 6-oxo-PGF1.alpha. stimulated by TPA, palytoxin, melittin, the Ca2+ ionophore A 23187, colchicine, transforming growth factor .alpha., or exogenous arachidonic acid. The effect of PAF on arachidonic acid metab. was inhibited by prior exposure of the cells to PAF. Prior treatment of the rat liver cells at 37.degree. with the TPA-type tumor promoters TPA, teleocidin, and aplysiatoxin, as well as with the 2nd-stage tumor promoter mezerein, all of which activate the Ca2+/phospholipid-dependent protein kinase (protein kinase C), resulted not only in homologous desensitization to the TPA-type tumor promoters and mezerein, but also in heterologous desensitization to PAF. Stimulation of PGI2 prodn. by palytoxin, A 23187, or exogenous arachidonic acid was not inhibited by such prior treatments with the TPA-type tumor promoters. Prior treatment of the cells at 37.degree. for 30 min with the non-TPA-type tumor promoters okadaic acid or palytoxin, both of which do not activate protein kinase C, did not result in heterologous desensitization to PAF.

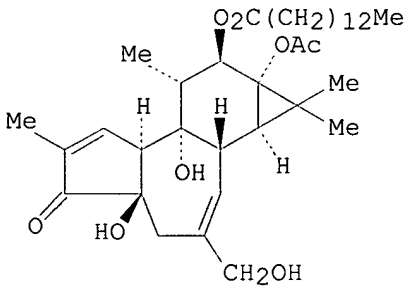
IT **34807-41-5**, Mezerein
RL: BIOL (Biological study)
(**liver** cells desensitization to platelet-activating factor stimulation of prostaglandin formation by)

L58 ANSWER 30 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:586743 HCAPLUS
DOCUMENT NUMBER: 109:186743
TITLE: Construction of novel chiral synthons with enzymes and application to natural product synthesis. Part 23. Enantioselective hydrolysis of dialkyl 3-monosubstituted glutarates with pig liver esterase: structure-optical purity relationships
AUTHOR(S): Nakada, Masahisa; Kobayashi, Susumu; Ohno, Masaji; Iwasaki, Shigeo; Okuda, Shigenobu
CORPORATE SOURCE: Fac. Pharm. Sci., Univ. Tokyo, Tokyo, 113, Japan
SOURCE: Tetrahedron Lett. (1988), 29(32), 3951-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 109:186743

AB Dialkyl 3-monosubstituted glutarates are subjected to hydrolysis with pig liver esterase to afford the corresponding chiral half-esters. Synthetically useful half-esters of higher optical purity are obtained from the prochiral substrates of more hydrophobic nature.

IT **117213-93-1**
RL: RCT (Reactant)
(enantioselective hydrolysis of, with pig **liver** esterase)
IT **117214-00-3P**
RL: PREP (Preparation)
(prepn. of, from dialkyl glutarate enantioselective hydrolysis with pig **liver** esterase)

L58 ANSWER 31 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:126358 HCAPLUS
DOCUMENT NUMBER: 108:126358
TITLE: Differential effects of tumor promoters on the growth of normal human bronchial epithelial cells and human lung tumor cell lines
AUTHOR(S): Sanchez, J. H.; Boreiko, C. J.; Furlong, J.; Hesterberg, T. W.
CORPORATE SOURCE: Dep. Gen. Toxicol., Chem. Ind. Inst. Toxicol., Research Trinagle Park, NC, 27709, USA
SOURCE: Toxicol. In Vitro (1987), 1(4), 183-8
CODEN: TIVIEQ; ISSN: 0887-2333
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

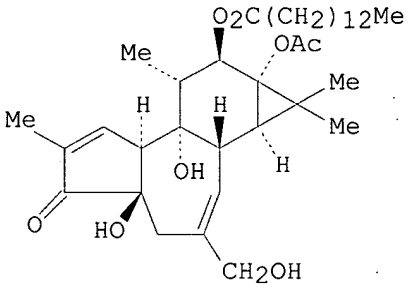


I

AB The effects of TPA (I) on the colony-forming efficiency and growth of normal human bronchial epithelial (NHBE) cells and 5 lung squamous carcinoma cell lines were compared in medium contg. 1% fetal bovine serum. TPA (0.1-5.0 ng/mL) inhibited the growth of NHBE cells and 1 carcinoma cell line, whereas 4 of the 5 carcinoma lines were less sensitive to the growth- inhibitory properties of TPA but were slightly inhibited at higher TPA concns. The responses of NHBE cells and carcinoma cells to TPA, and the related compds., mezerein, 4-O-Me TPA, and phorbol were then compared in serum-free medium. In general, the removal of serum from the medium increased the differences in the responses to TPA between normal and tumor cells. Two carcinoma lines inhibited by TPA in 1% serum were stimulated by TPA in the absence of serum. Mezerein and, to a lesser extent, 4-O-Me TPA also produced differential responses in colony-forming efficiencies between tumor lines and NHBE cells. Phorbol had no effect on either NHBE cells or on carcinoma cell lines. The relative insensitivity of carcinoma cell lines to the growth inhibitory effects of tumor promoters is consistent with the hypothesis that tumor promotion involves selection against normal cells to permit clonal expansion of preneoplastic or neo cell types.
IT **34807-41-5**, Mezerein
RL: BIOL (Biological study)

(colony-forming efficiency and growth of human bronchial epithelial cells and human **lung** tumor cell lines response to)

L58 ANSWER 32 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1986:124747 HCAPLUS
DOCUMENT NUMBER: 104:124747
TITLE: Novel serine phosphorylation of pp60c-src in intact cells after tumor promoter treatment
AUTHOR(S): Gentry, Larry E.; Chaffin, Karen E.; Shoyab, Mohammed; Purchio, A. F.
CORPORATE SOURCE: ONCOGEN, Seattle, WA, 98121, USA
SOURCE: Mol. Cell. Biol. (1986), 6(2), 735-8
CODEN: MCEBD4; ISSN: 0270-7306
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

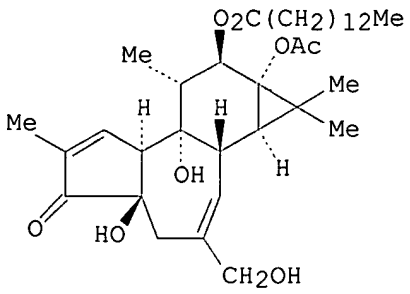


I

AB Treatment of normal cells with the tumor promoters TPA (I) [16561-29-8] and mezerein [34807-41-5] resulted in increased phosphorylation of the neoplastic-transforming protein pp60c-src. Two-dimensional tryptic phosphopeptide anal. of partial V8 protease fragments indicated that this phosphorylation takes place on a serine [56-45-1] residue and represents the major phosphorylation site following tumor promoter treatment. Untreated cells exhibited a low but detectable level of phosphorylation at this serine residue. The significance of these results with respect to the phosphoregulation of pp60c-src as well as tumor promotion is discussed.

IT **34807-41-5**
RL: BIOL (Biological study)
(protein phosphorylation enhancement by, in **lung** cells)

L58 ANSWER 33 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1986:124685 HCAPLUS
DOCUMENT NUMBER: 104:124685
TITLE: Effects of 12-O-tetradecanoylphorbol 13-acetate on adhesiveness and lung-colonizing ability of Lewis lung carcinoma cells
AUTHOR(S): Takenaga, Keizo; Takahashi, Katsuhiro
CORPORATE SOURCE: Dep. Chemother., Chiba Cancer Cent. Res. Inst., Chiba, 280, Japan
SOURCE: Cancer Res. (1986), 46(1), 375-80
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

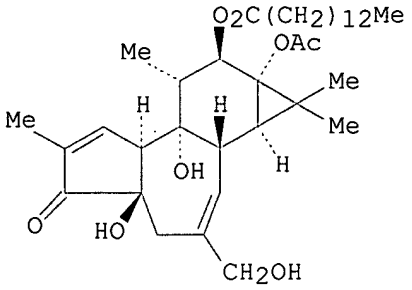


I

AB The potent tumor promoter 12-O-tetradecanoylphorbol 13-acetate (TPA) (I) [16561-29-8] enhanced the adherence of low-metastatic Lewis **lung** carcinoma cells (P-29) to the surface of plastic culture dishes and to monolayers of endothelial cells. This effect was transient, being apparent within 15 min and maximal within 1 h after treatment with TPA. Biol. active analogs of TPA and mezerein [**34807-41-5**] also enhanced attachment of P-29 cells, whereas inactive analogs of TPA did not. TPA-treated P-29 cells formed many more pulmonary nodules than did untreated P-29 cells when injected i.v. into C57BL/6 mice. The kinetics of enhancement of attachment of P-29 cells after TPA treatment coincided well with that of enhancement of their **lung**-colonizing ability. Addn. of TPA to P-29 cells stimulated phosphorylation of a cellular protein with a mol. wt. of 54,000. The possibility that this phosphorylation was related to activation of Ca-phospholipid-dependent protein kinase was suggested by the fact that phospholipid breakdown induced by exogenous treatment of the cells with Clostridium perfringens phospholipase C [9001-86-9] and 1-oleoyl-2-acetylglycerol [84746-00-9] also enhanced Mr 54,000 cellular protein phosphorylation. However, neither phospholipase C nor 1-oleoyl-2-acetylglycerol enhanced attachment of P-29 cells or their **lung**-colonizing ability.

IT **34807-41-5**
RL: BIOL (Biological study)
(**lung** carcinoma cell adhesiveness and **lung** colonizing ability response to pretreatment with)

L58 ANSWER 34 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:144549 HCAPLUS
DOCUMENT NUMBER: 102:144549
TITLE: Response of cultured rat liver epithelial cell lines to tumor-promoting phorbol esters
AUTHOR(S): Ljubimov, Alexander V.; Martel, Nicole; Yamasaki, Hiroshi
CORPORATE SOURCE: Int. Agency Res. Cancer, Lyon, 69372, Fr.
SOURCE: Exp. Cell Res. (1985), 156(2), 311-26
CODEN: ECREAL; ISSN: 0014-4827
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB The membrane effects of a potent tumor promoter, TPA (I) [16561-29-8], were studied in a series of cultured rat liver epithelial cell lines. Treatment with TPA resulted in the formation of strand-like aggregates (ridges) of viable cells over the monolayer of IAR 6-1 cells, but not of 3 other cell lines tested (IAR 20, IAR 6, IAR 6-7). A class of specific, saturable, high-affinity receptors for phorbol esters was demonstrated in all 4 cell lines employing a conventional 20-3H-labeled phorbol 12,13-dibutyrate [37558-16-0]-binding assay. The dissocn. consts. were similar in 4 lines, but the no. of receptors per cell in IAR 6-1 cells was about twice than that in other lines. Down-regulation of receptors was demonstrated in IAR 20 and IAR 6-1 cells with similar characteristics. Iodinable surface proteins and galactose-contg. surface glycoproteins did not respond to TPA. The distribution of fibronectin, laminin-entactin, and procollagen type III was not affected by TPA. A TPA-responsive cell line, IAR 6-1, contained considerably less laminin-entactin than did the other lines. TPA had no influence on metabolic labeling of 3H-labeled fucose-contg. cellular glycoprotein in IAR 6-1 cells. One specific protein, with mol. mass of 78 kdaltons was more heavily labeled in IAR 6-1 cells than in the other cell lines. The responsive cells (IAR 6-1) differed from nonresponsive ones in having more phorbol ester receptors, increased fucosylation of a specific glycoprotein, and decreased deposition of laminin-entactin in the extracellular matrix.

IT **34807-41-5**
RL: PROC (Process)
(binding of, by receptors of cultured **liver** epithelial cells)

L58 ANSWER 35 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:2495 HCAPLUS
DOCUMENT NUMBER: 102:2495
TITLE: Mechanism of inactivation of chymotrypsin by 3-benzyl-6-chloro-2-pyrone
AUTHOR(S): Gelb, Michael H.; Abeles, Robert H.
CORPORATE SOURCE: Grad. Dep. Biochem., Brandeis Univ., Waltham, MA, 02254, USA
SOURCE: Biochemistry (1984), 23(26), 6596-604
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English

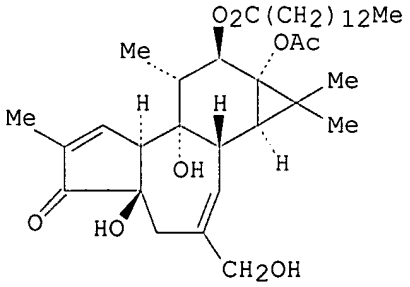
AB The mechanism of inactivation of chymotrypsin (I) by 3-benzyl-6-chloro-2-pyrone was studied. Chloride anal. of inactivated I suggested that the complex did not contain intact chloropyrone or an acid chloride. 13C NMR studies of I inactivated with 13C-enriched chloropyrones showed that (1) the pyrone ring was no longer intact, (2) C-6 became a carboxylate group and C-2 became esterified to the enzyme, probably to serine-195, and (3) a double bond was present adjacent to the serine ester. Inactivated I

slowly regained catalytic activity with the concomitant release of (E)-4-benzyl-2-pentenedioic acid. Evidently, double bond migration occurred during reactivation, since the position of the double bond in the released diacid product was different than in the inactivator-enzyme complex. When the reactivation was carried out in [18O]H2O-enriched water, a single 18O was incorporated into the released product, and this was further evidence that the inactivator is bound to the enzyme only through a single ester linkage. A 2H isotope effect on reactivation was obsd. when a chloropyrone deuterated at C-5 was used. Thus, removal of a proton from C-5 is required for reactivation, and isomerization of the double bond and not hydrolysis of the acyl-enzyme is rate detg. A variety of amines accelerated the rate of reactivation by functioning as general bases and not as nucleophiles. A reaction scheme is presented that accounts for the formation of the stable inactivator-enzyme complex as well as the prodn. of 2 products derived from enzymic hydrolysis of the chloropyrone. The importance of a C-6-derived carboxylate group in the stabilization of the acyl-enzyme is discussed.

IT **85533-88-6**
RL: FORM (Formation, nonpreparative)
(formation of, from benzylchloropyrone by **chymotrypsin**, enzyme inactivation in relation to)

IT **93383-65-4**
RL: FORM (Formation, nonpreparative)
(formation of, in benzylchloropyrone inactivation of **chymotrypsin**)

L58 ANSWER 36 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:134019 HCAPLUS
DOCUMENT NUMBER: 100:134019
TITLE: Effects of tumor promoters on the frequency of metallothionein I gene amplification in cells exposed to cadmium
AUTHOR(S): Hayashi, Kenshi; Fujiki, Hirota; Sugimura, Takashi
CORPORATE SOURCE: Biochem. Div., Natl. Cancer Cent. Res. Inst., Tokyo, 104, Japan
SOURCE: Cancer Res. (1983), 43(11), 5433-6
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Three potent tumor promoters of different classes, 12-O-tetradecanoylphorbol 13-acetate (I) [16561-29-8], dihydroteleocidin B

[7491-76-1] and aplysiatoxin [52659-57-1], and 2 moderate tumor promoters, mezerein [**34807-41-5**], and debromoaplysiatoxin [52423-28-6], enhanced the frequency of appearance of Cd-resistant Chinese hamster **lung** cells when the cells were exposed to cytotoxic levels of CdCl2. With these compds., the activity to induce Cd-resistant cells correlated well with the potency of tumor-promoting activity. Cd resistance, which persisted after removal of the tumor promoters, was assocd. with the overprodn. of metallothionein I mRNA. The amplified metallothionein I genes were shown by Southern blotting expts. The relevance of the gene amplification caused by tumor promoters is discussed in relation to cancer development and progression.

L58 ANSWER 37 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:115151 HCAPLUS
DOCUMENT NUMBER: 100:115151
TITLE: Long-acting contraceptive agents: in vitro hydrolysis of esters of norethisterone and levonorgestrel
AUTHOR(S): Naderi, S.; Fotherby, K.
CORPORATE SOURCE: Dep. Steroid Biochem., R. Postgrad. Med. Sch., London, W12 0HS, UK
SOURCE: Steroids (1983), 41(3), 397-417
CODEN: STEDAM; ISSN: 0039-128X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hydrolysis of 108 norethisterone esters and 49 levonorgestrel esters by rabbit liver was studied in vitro. For straight chain esters, introduction of a triple or double bond at C4, C5, or C6 did not inhibit hydrolysis; however, a decrease in hydrolysis was produced by replacement of a methylene group by an O atom. Except for short chain esters, hydrolysis was inhibited by substituents at C2 of the ester chain. Cyclopropylcarboxylate and cyclobutylcarboxylate were readily hydrolyzed, and introduction of a furan ring into the side chain did not affect hydrolysis. Cholesteryl carbonate ester and pentamethyldisilyloxy ether were not hydrolyzed by the liver prepn. Levonorgestrel esters were hydrolyzed more slowly than norethisterone esters, and biol. potency of the esters was independent of the rate of hydroysis in vitro. Apparently, hydrolysis rate is not the major factor involved in expression of biol. activity, with uptake from the injection site probably being more important.
IT **89094-62-2 89094-76-8**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(hydrolysis of, by **liver**)

L58 ANSWER 38 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:418590 HCAPLUS
DOCUMENT NUMBER: 99:18590
TITLE: Novel inactivators of serine proteases based on 6-chloro-2-pyrone
AUTHOR(S): Westkaemper, Richard B.; Abeles, Robert H.
CORPORATE SOURCE: Grad. Dep. Biochem., Brandeis Univ., Waltham, MA, 02254, USA
SOURCE: Biochemistry (1983), 22(13), 3256-64
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The interaction of serine protease (esterases) with 6-chloro-2-pyrones was investigated. Time-dependent inactivation of chymotrypsin, .alpha.-lytic protease, pig liver elastase, and acetylcholinesterase was found with 3- and 5-benzyl-6-chloro-2-pyrone, as well as 3- and 5-methyl-6-chloro-2-

pyrone. No inactivation was obsd. with the unsubstituted 6-chloro-2-pyrone. The substituted pyrones did not inactivate papain or carboxypeptidase A, nor a no. of other nonproteolytic enzymes. The substituted chloropyrones, therefore, show considerable selectivity toward serine proteases. Analogs in which the 6-chloro substituent is replaced by H or OH do not inactivate. The presence of the halogen is, therefore, essential for inactivation. Chymotrypsin catalyzes the hydrolysis of 3-benzyl-6-chloro-2-pyrone. At pH 7.5, (E)-4-benzyl-2-pentenedioic acid is the major product, and 2-benzyl-2-pentenedioic anhydride is a minor product. The ratio of hydrolysis product found to the no. of enzyme mols. inactivated varies in the range 14-40. The enzyme inactivated with the 3-benzyl compd. does not show a spectrum characteristic of the pyrone ring. This suggests that inactivation by 3-benzyl-6-chloro-2-pyrone occurs in a mechanism-based fashion after enzymic lactone hydrolysis. When the enzyme is inactivated with the 5-benzyl compd., absorbance due to the pyrone ring is obsd. It is suggested that inactivation occurs through an active site directed mechanism involving a 1,6-conjugate addn. of an active site nucleophile to the pyrone ring.

IT **85533-83-1**
RL: FORM (Formation, nonpreparative)
(formation of, in **chymotrypsin** reaction with benzylchloropyrone)

IT **85533-84-2 85533-85-3**
RL: FORM (Formation, nonpreparative)
(formation of, in **chymotrypsin** reaction with benzylpentenedioic anhydride)

IT **85533-91-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with **chymotrypsin**)

L58 ANSWER 39 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:1508 HCAPLUS
DOCUMENT NUMBER: 98:1508
TITLE: Diversity of nuclear phorbol ester tumor promoter receptors in mouse liver: evidence for two classes of binding sites
AUTHOR(S): Perrella, Frank W.; Bussell, Pauline A.; Boutwell, R. K.
CORPORATE SOURCE: McArdle Lab. Cancer Res., Univ. Wisconsin, Madison, WI, 53706, USA
SOURCE: Biochem. Biophys. Res. Commun. (1982), 108(4), 1722-7
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
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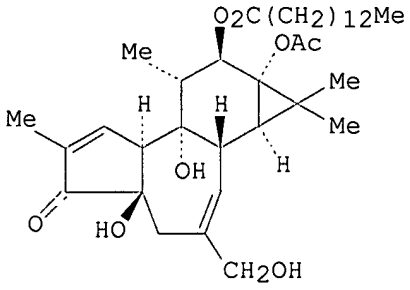

I

AB Two classes of phorbol ester binding sites were demonstrated in the nuclear fraction of liver from female CD-1 mice. Equil. binding studies of 0.40 M NaCl nuclear exts. yielded a sigmoidal satn. curve which was resolved by Hill plot anal. into 2 components. However, when nuclei were extd. in 0.24 M NaCl, the 12-O-tetradecanoylphorbol 13-acetate (I) [16561-29-8] satn. curve of the ext. was biphasic in the shape of both high and low affinity binding sites termed Class I and II receptors. When the 0.24 M NaCl extd. nuclear pellet was extd. further in 0.40 M NaCl, satn. anal. of the ext. revealed only the low affinity binding site (Class II). This is the 1st study to identify the existence of phorbol ester receptors in liver nuclei.

IT **34807-41-5**
RL: PRP (Properties)
(binding sites of, in **liver**, classes of)

L58 ANSWER 40 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:491946 HCAPLUS
DOCUMENT NUMBER: 97:91946
TITLE: Carboxylic acids
PATENT ASSIGNEE(S): Toyama Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57014555	A2	19820125	JP 1980-88477	19800701

OTHER SOURCE(S): CASREACT 97:91946
AB Thirty-four carboxylic acids R1C6H4C6H5-nRn[I, = (carboxy) alkenylene or alkadienylene; R = substituted alkyl, alkenyl, aryl, etc.; R1 = CO2H, (carboxy) alkyl; n = 0-3) were prepd. by reaction of RnC6H5-nX1CHO (X1 = alkylene, alkenylene) with R1C6H5(CH2)mCO2H (m = 1-3). Liver function improving test data of I were given in rats using Congo Red. Thus, refluxing a mixt. of 0.94 g trans-PhCH:CHCHO, 0.9 g 3-HO2CC6H4CH2CO2H, 1.1 mL Ac2O, and 0.58 mL Et3N 35 min gave 0.8 g (E,E)-3-HO2CC6H4C(CO2H):CHCH:CHPh.

IT **81995-43-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for **liver** function improvement)

L58 ANSWER 41 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:418803 HCAPLUS
DOCUMENT NUMBER: 97:18803
TITLE: The role of free oxygen radicals in tumor promotion and carcinogenesis
AUTHOR(S): Troll, Walter; Witz, Gisela; Goldstein, Bernard; Stone, Donna; Sugimura, Takashi
CORPORATE SOURCE: Med. Cent., New York Univ., New York, NY, 10016, USA
SOURCE: Carcinog. - Compr. Surv. (1982), 7(Cocarcinog. Biol. Eff. Tumor Promoters), 593-7
CODEN: CCSUDL; ISSN: 0147-4006
DOCUMENT TYPE: Journal
LANGUAGE: English
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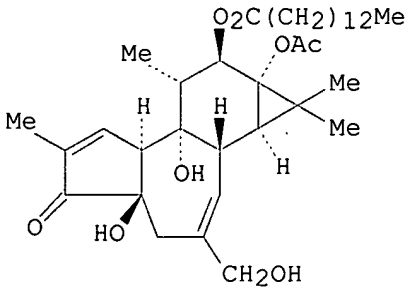


I

AB The formation of superoxide by polymorphonuclear lymphocyte (PMNs) was stimulated by phorbol 12-myristate 13-acetate (I) [16561-29-8], mezerein [**34807-41-5**], and teleocidin B [11032-05-6] which are tumor promoters. However, phorbol esters which are not tumor promoters did not enhance superoxide formation. Soybean and lima bean **trypsin** inhibitor [36357-77-4], retinol [68-26-8], retinyl acetate [127-47-9], retinoic acid [302-79-4] and other protease inhibitors inhibited the I-stimulated superoxide formation in PMNs. Probably, the free superoxide is responsible for the tumor promoter-induced cell damage.

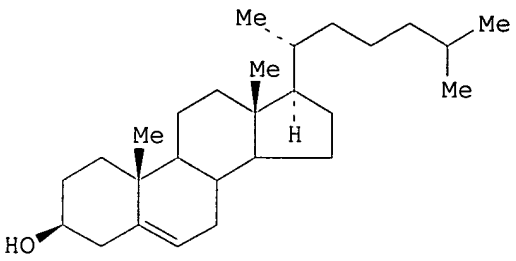
L58 ANSWER 42 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:104596 HCAPLUS
DOCUMENT NUMBER: 96:104596
TITLE: Synthesis and properties of liquid crystals. III. Cholesterol esters of some cis-, trans-isomers of unsaturated acids
AUTHOR(S): Bogatskii, A. V.; Galatina, A. I.; Derkach, L. G.; Taubert, D.
CORPORATE SOURCE: Fiz.-Khim. Inst., Odessa, USSR
SOURCE: Zh. Org. Khim. (1981), 17(11), 2320-3
CODEN: ZORKAE; ISSN: 0514-7492
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The esters of cholesterol with cis- and trans-RCX:CHCO2H (R = Me, Ph; X = H; R = Me, X = Cl) and with .alpha.-cis-.gamma.-trans- and .alpha.-trans-.gamma.-trans-RCH:CHCH:CHCO2H (R = Me, Ph) were prepd. and their crystal .fwdarw. cholesteric mesophase, (T1), cholesteric mesophase .fwdarw. isotropic liq. (T2), and cholesteric mesophase .fwdarw. crystal transition temps. detd. The double bonds in the acid moiety facilitate formation of the cholesteric mesophase and retard crystn. Both T1 and T2 are higher for the trans than for the cis isomers. The Cl atom lowers the thermal stability of the cholesteric mesophase.

IT **28010-12-0 28010-13-1**
RL: RCT (Reactant)
(esterification of, with **cholesterol**)

L58 ANSWER 43 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1978:16047 HCAPLUS
DOCUMENT NUMBER: 88:16047
TITLE: Effect of .beta.-benzalbutyramide on cholesterol biosynthesis
AUTHOR(S): Nakamura, Haruo
CORPORATE SOURCE: Dep. Oral Physiol., Hokkaido Univ. Sch. Dent., Sapporo, Japan
SOURCE: Igaku To Seibutsugaku (1976), 92(5), 421-3

CODEN: IGSBAL
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
GI



II

AB Administration of .beta.-benzalbutyramide (I) [**7236-47-7**] (100 mg/Kg) lowered plasma **cholesterol** (II) [57-88-5] in male rats given Triton WR 1339 (200 mg/Kg). II biosynthesis from acetate and mevalonate by **liver** was inhibited by I in vitro and in vivo. I inhibited the incorporation of mevalonate more markedly than that of acetate.
IT **7236-47-7**
RL: BIOL (Biological study)
(**cholesterol** formation by **liver** inhibition by)

L58 ANSWER 44 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:150586 HCAPLUS
DOCUMENT NUMBER: 86:150586
TITLE: Effect of hypolipidemic and hypoglycemic drugs on ethanol induced hypertriglyceridemia in rats
AUTHOR(S): Puglisi, L.; Caruso, V.; Conti, F.; Fumagalli, R.; Sirtori, C.
CORPORATE SOURCE: Inst. Pharmacol. Pharmacogn., Univ. Milano, Milan, Italy
SOURCE: Pharmacol. Res. Commun. (1977), 9(1), 71-7
CODEN: PLRCAT
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An exptl. model of hypertriglyceridemia induced by subacute ethanol [64-17-5] administration was developed in rats. A four day schedule of administration induced a 50-100% increase of serum triglycerides, without changes in **cholesterol** levels. Drugs effective on lipid or glucose metab. were tested in this model. Hypoglycemic sulphonylureas, nicotinic acid, clofibrate, and the new hypolipidemic agent .beta.-benzalbutyrate diethylamide (C11) [**58458-55-2**] were effective agents in controlling ethanol induced hypertriglyceridemia. The activity of C11 was also confirmed in ethanol-induced hypertriglyceridemia in human volunteers.

L58 ANSWER 45 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1974:11894 HCAPLUS
DOCUMENT NUMBER: 80:11894
TITLE: Manipulation of enzyme function
AUTHOR(S): Fink, Gerhard; Thoma, Hans
CORPORATE SOURCE: Inst. Tech. Chem., Tech. Univ. Muenchen, Munich, Ger.
SOURCE: DECHEMA (Deut. Ges. Chem. Apparatew.) Monogr. (1973),

71, 295-314
CODEN: DMDGAG
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Me cinnamoylacetate (PhCH:CHCOCH2CO2Me) (I) was synthesized as model substrate for chymotrypsin, as well as the p-methoxy derivs., Me 5-(p-methoxyphenyl)-3-ketovalerate, and Me 4-phenylbutadienecarboxylate. Only I was hydrolyzed by the enzyme. The rate was measured by the pH-stat method and was proportional to enzyme concn., with the greatest activity at pH 8. Substrate saturation occurred at 3.1 .times. 10-3M. There was no hydrolysis in the absence of enzyme. The model substrates were only slightly soluble in water, so MeOH, EtOH, dioxane, and Me2SO were used as solvents. These solvents reduced the activity of the enzyme. The effect of these solvents was detd. on the chymotrypsin attached to CM-methylcellulose. The dioxane and Me2SO systems gave the highest enzymic activity. The chymotrypsin was bound to the CM-cellulose by the azide method. N-Succinyl-L-phenylalanine- (SPNA), N-glutaryl-L-phenylalanine- (GPNA), N-acetyl-L-tyrosine- (ATNA), and L-phenylalanine- (PNA) p-nitroanilides were used as substrates in the column reactor and the rate of the reaction measured by the p-nitroaniline formed measured at 405 nm. When the amt. of product formation was plotted against time a break was found in the curve and the break was dependent on substrate and enzyme concn., but was independent of the flow rate of substrate soln. through the column. The charge on the CM-cellulose displaced the pH optimum of the reaction to 9.3. NaCl had a complex effect on the immobilized enzyme. Temp. effects on the immobilized enzyme were measured and the heat of reaction calcd. for the various substrates: ATNA, 15.6 Kcal/mole; GPNA, 15.5 kcal/mole and PNA, 14.2 kcal/mole.

IT **1516-24-1**
RL: RCT (Reactant)
(reaction of, with **chymotrypsin**, kinetics of)

L58 ANSWER 46 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1972:471959 HCAPLUS
DOCUMENT NUMBER: 77:71959
TITLE: Specific modification of methionine-192 of .alpha.-chymotrypsin by an affinity label exploiting the orienting properties of the linear acetylenic group
AUTHOR(S): Jones, J. Bryan; Hysert, David W.
CORPORATE SOURCE: Dep. Chem., Univ. Toronto, Toronto, Ont., Can.
SOURCE: Biochemistry (1972), 11(14), 2726-33
CODEN: BICHAW
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The practicability of incorporating acetylenic bonds into affinity labels in order to exploit their rodlike properties for improving the orientation of an alkylating function toward a selected protein nucleophile was demonstrated by the facile irreversible inhibition of .alpha.-chymotrypsin by 6-bromo-1-phenylhex-4-yn-3-one. 6-Bromo-1-phenylhex-4-yn-3-one was designed to achieve optimum orientation of its propargylic bromide alkylating function toward both histidine-57 and methionine-192. However, the latter function was alkylated selectively owing to its 100-fold greater reactivity with propargylic bromides. Rate of inhibition, pH-rate profile, competitive inhibition, effect on Km(app) and k3, amino acid anal., and diagonal peptide-mapping studies established that 6-bromo-1-phenylhex-4-yn-3-one was a methionine-192-specific, active-site-directed, irreversible inhibitor. The calcd. values of its Ki (10mM) and rate of inhibition const. (2.8 .times. 10-3 sec-1) show it to

be one of the best methionine-192 of .alpha.-chymotrypsin directed affinity labels yet evaluated.

IT **37566-49-7**
RL: BIOL (Biological study)
(**chymotrypsin** inhibition by, kinetics of)

L58 ANSWER 47 OF 47 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1969:113584 HCAPLUS
DOCUMENT NUMBER: 70:113584
TITLE: Inhibition of liver cholesterol biosynthesis by butyric acid derivatives
AUTHOR(S): Giorgini, D.; Porcellati, Giuseppe
CORPORATE SOURCE: Univ. Pavia, Pavia, Italy
SOURCE: Farmaco, Ed. Sci. (1969), 24(4), 392-401
CODEN: FRPSAX
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Previous work on cholesterol synthesis inhibition by various phenyl derivs. is reviewed. Exptl. evidence is reported which shows that cholesterol synthesis from labeled acetate in rat liver slices is markedly inhibited in vitro by .beta.-benzalbutyric acid, and in a less evident way also by .alpha.-hydroxy-.beta.-benzalbutyric acid. Cholesterol formation from labeled mevalonate is, on the contrary, scarcely affected under similar conditions by both compds. Results are also shown which indicate that a similar inhibition is brought about also by .beta.-benzalbutyramide in rat liver purified microsomes, supplemented by its supernatant fraction. Inhibition is similarly evident from acetate but is hardly present, when acetate is replaced by mevalonate. Expts. carried out with partially purified enzymes (acetate:CoA ligase, E.C. 6.2.1.1, and acetyl CoA-acetyl transferase, E.C. 2.3.1.9) show that only the 1st enzyme is inhibited in vitro by .beta.-benzalbutyric acid, although at concns. higher than those shown to be able to inhibit cholesterol formation by the slices. Suggestion is made that other enzymes of the acetate-mevalonate pathway might be inhibited in vitro by .beta.-benzalbutyric acid and its derivs.

IT **7236-47-7**
RL: BIOL (Biological study)
(**cholesterol** formation by **liver** in response to)

=> select hit rn 158 1-47
E10 THROUGH E56 ASSIGNED

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L59 47 S E10-E56

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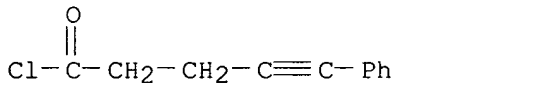
=> d ide can l59 1-47

L59 ANSWER 1 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **300662-69-5** REGISTRY
CN 4-Pentynoyl chloride, 5-phenyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C11 H9 Cl O
SR CA
LC STN Files: CA, CAPLUS, CASREACT

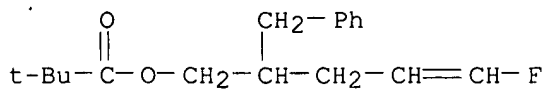


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:296331

L59 ANSWER 2 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **205373-53-1** REGISTRY
CN Propanoic acid, 2,2-dimethyl-, 5-fluoro-2-(phenylmethyl)-4-pentenyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H23 F O2
SR CA
LC STN Files: CA, CAPLUS

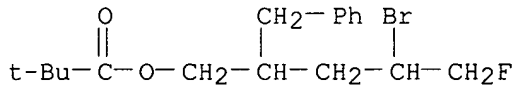


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 128:291977

L59 ANSWER 3 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **205373-49-5** REGISTRY
CN Propanoic acid, 2,2-dimethyl-, 4-bromo-5-fluoro-2-(phenylmethyl)pentyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H24 Br F O2
SR CA
LC STN Files: CA, CAPLUS

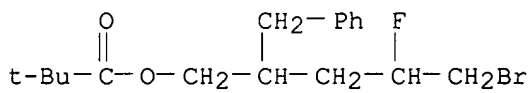


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 128:291977

L59 ANSWER 4 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **205373-47-3** REGISTRY
CN Propanoic acid, 2,2-dimethyl-, 5-bromo-4-fluoro-2-(phenylmethyl)pentyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H24 Br F O2
SR CA
LC STN Files: CA, CAPLUS



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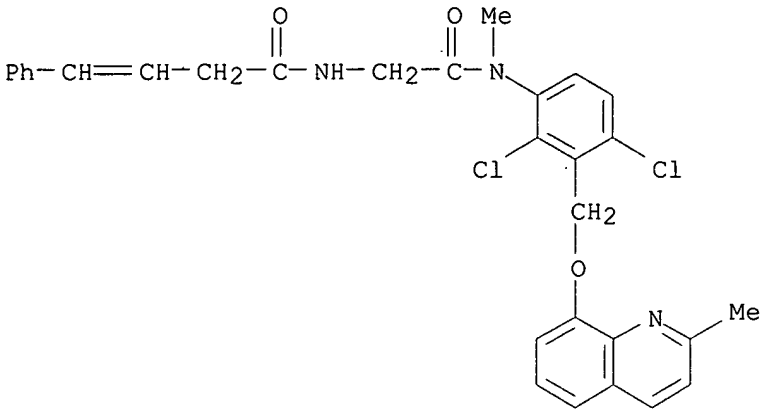
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 128:291977

L59 ANSWER 5 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **199791-52-1** REGISTRY
CN 3-Butenamide, N-[2-[[2,4-dichloro-3-[[(2-methyl-8-quinolinyl)oxy]methyl]phenyl]methylamino]-2-oxoethyl]-4-phenyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD

MF C30 H27 Cl2 N3 O3
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

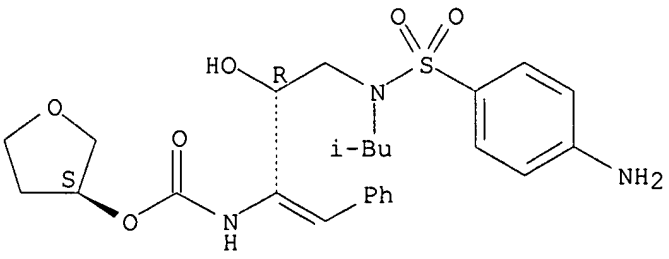
2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 128:30416

REFERENCE 2: 128:30415

L59 ANSWER 6 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **180728-05-6** REGISTRY
CN Carbamic acid, [3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethylene)propyl]-, tetrahydro-3-furanyl ester, [S-(R*,S*)]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C25 H33 N3 O6 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



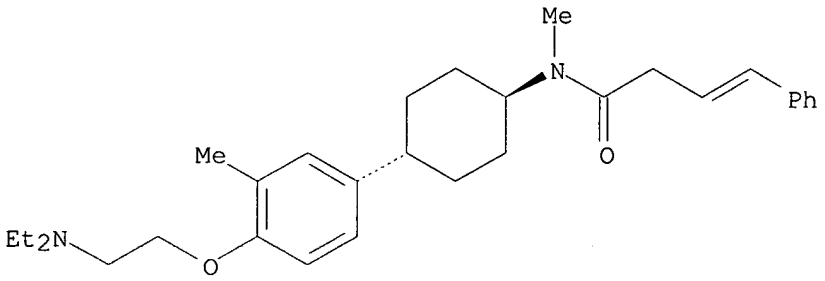
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:184776

L59 ANSWER 7 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **178541-89-4** REGISTRY
CN 3-Butenamide, N-[4-[4-[2-(diethylamino)ethoxy]-3-methylphenyl]cyclohexyl]-N-methyl-4-phenyl-, trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C30 H42 N2 O2
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.
Double bond geometry unknown.



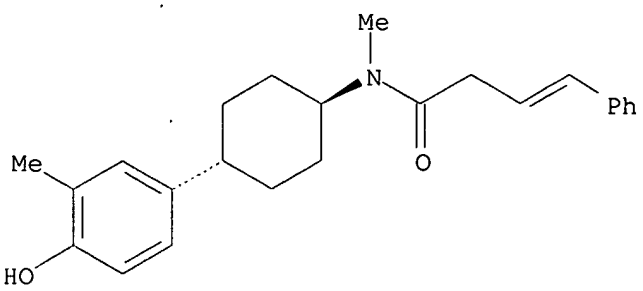
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:86319

L59 ANSWER 8 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **178541-15-6** REGISTRY
CN 3-Butenamide, N-[4-(4-hydroxy-3-methylphenyl)cyclohexyl]-N-methyl-4-phenyl-, trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C24 H29 N O2
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.
Double bond geometry unknown.



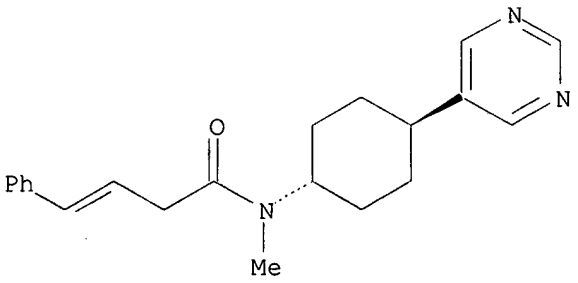
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:86319

L59 ANSWER 9 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **178540-64-2** REGISTRY
CN 3-Butenamide, N-methyl-4-phenyl-N-[4-(5-pyrimidinyl)cyclohexyl]-, trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H25 N3 O
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.
Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

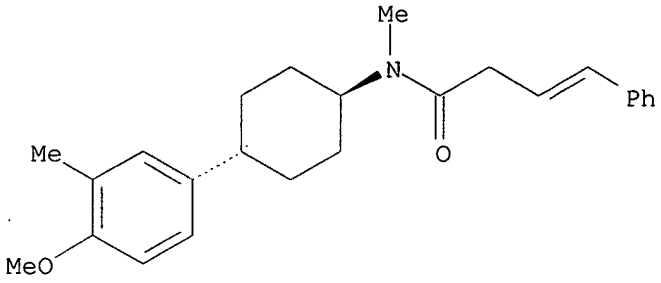
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:86319

L59 ANSWER 10 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **178540-37-9** REGISTRY
CN 3-Butenamide, N-[4-(4-methoxy-3-methylphenyl)cyclohexyl]-N-methyl-4-phenyl-, trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C25 H31 N O2

SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.
Double bond geometry unknown.



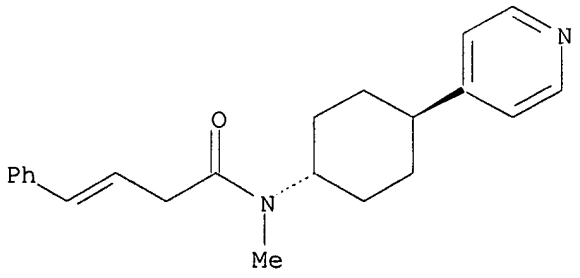
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:86319

L59 ANSWER 11 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **178540-24-4** REGISTRY
CN 3-Butenamide, N-methyl-4-phenyl-N-[4-(4-pyridinyl)cyclohexyl]-, trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C22 H26 N2 O
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.
Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

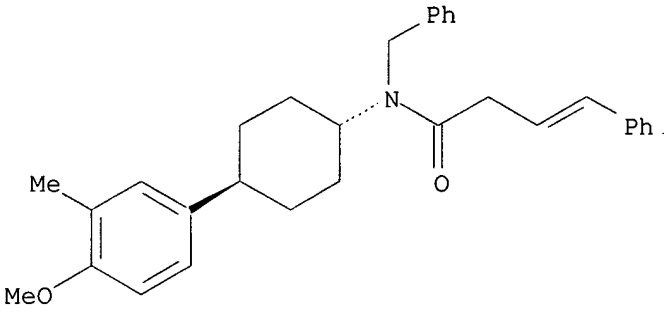
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:86319

L59 ANSWER 12 OF 47 REGISTRY COPYRIGHT 2002 ACS

RN **178365-08-7** REGISTRY
CN 3-Butenamide, N-[4-(4-methoxy-3-methylphenyl)cyclohexyl]-4-phenyl-N-(phenylmethyl)-, trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C31 H35 N O2
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.
Double bond geometry unknown.



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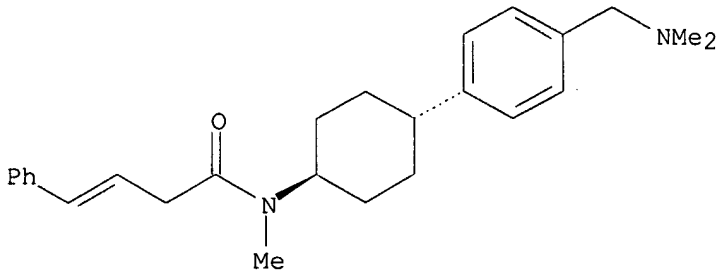
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:58115

L59 ANSWER 13 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **178163-33-2** REGISTRY
CN 3-Butenamide, N-[4-[4-[(dimethylamino)methyl]phenyl]cyclohexyl]-N-methyl-4-phenyl-, trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H34 N2 O
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.
Double bond geometry unknown.



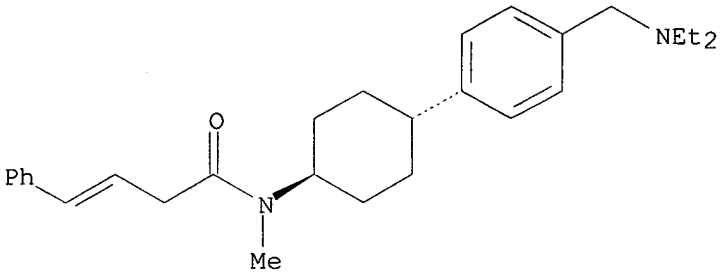
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:58083

L59 ANSWER 14 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **178162-88-4** REGISTRY
CN 3-Butenamide, N-[4-[4-[(diethylamino)methyl]phenyl]cyclohexyl]-N-methyl-4-phenyl-, trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C28 H38 N2 O
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.
Double bond geometry unknown.



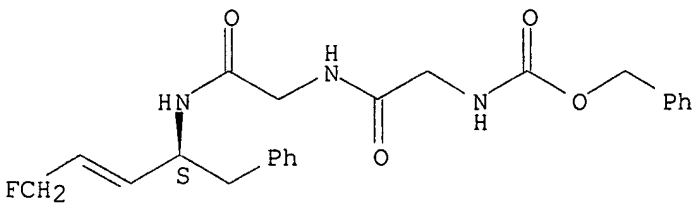
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:58083

L59 ANSWER 15 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-73-4** REGISTRY
CN Glycinamide, N-[(phenylmethoxy)carbonyl]glycyl-N-[4-fluoro-1-(phenylmethyl)-2-butenyl]-, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H26 F N3 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



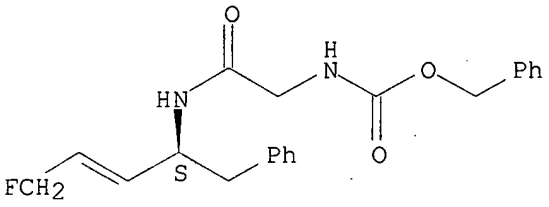
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

L59 ANSWER 16 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-72-3** REGISTRY
CN Carbamic acid, [2-[[4-fluoro-1-(phenylmethyl)-2-butenyl]amino]-2-oxoethyl]-, phenylmethyl ester, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H23 F N2 O3
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



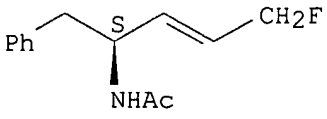
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

L59 ANSWER 17 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-71-2** REGISTRY
CN Acetamide, N-[4-fluoro-1-(phenylmethyl)-2-butenyl]-, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H16 F N O
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



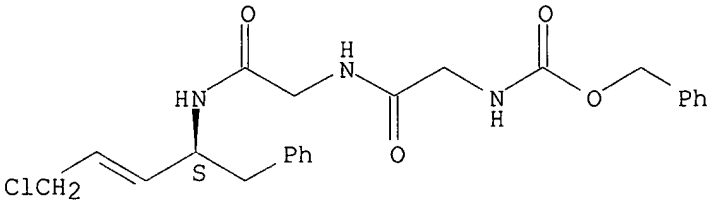
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

L59 ANSWER 18 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-70-1** REGISTRY
CN Glycinamide, N-[(phenylmethoxy)carbonyl]glycyl-N-[4-chloro-1-(phenylmethyl)-2-butenyl]-, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H26 Cl N3 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



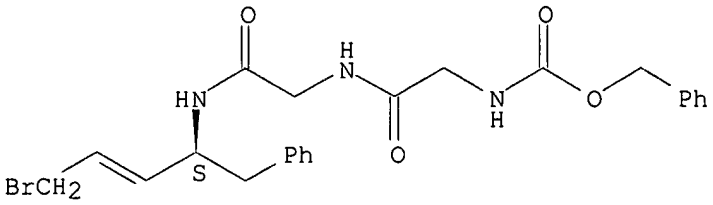
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

L59 ANSWER 19 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-69-8** REGISTRY
CN Glycinamide, N-[(phenylmethoxy)carbonyl]glycyl-N-[4-bromo-1-(phenylmethyl)-2-butenyl]-, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H26 Br N3 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



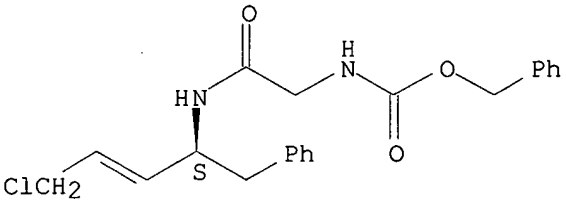
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

L59 ANSWER 20 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-68-7** REGISTRY
CN Carbamic acid, [2-[[4-chloro-1-(phenylmethyl)-2-butenyl]amino]-2-oxoethyl]-, phenylmethyl ester, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H23 Cl N2 O3
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



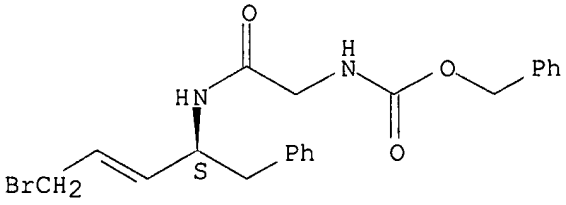
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

L59 ANSWER 21 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-67-6** REGISTRY
CN Carbamic acid, [2-[[4-bromo-1-(phenylmethyl)-2-butenyl]amino]-2-oxoethyl]-, phenylmethyl ester, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H23 Br N2 O3
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



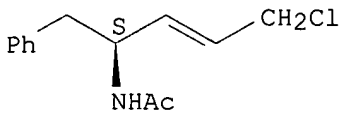
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

L59 ANSWER 22 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-64-3** REGISTRY
CN Acetamide, N-[4-chloro-1-(phenylmethyl)-2-butenyl]-, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H16 Cl N O
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



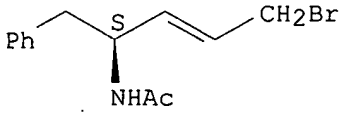
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

L59 ANSWER 23 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **173866-63-2** REGISTRY
CN Acetamide, N-[4-bromo-1-(phenylmethyl)-2-butenyl]-, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H16 Br N O
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



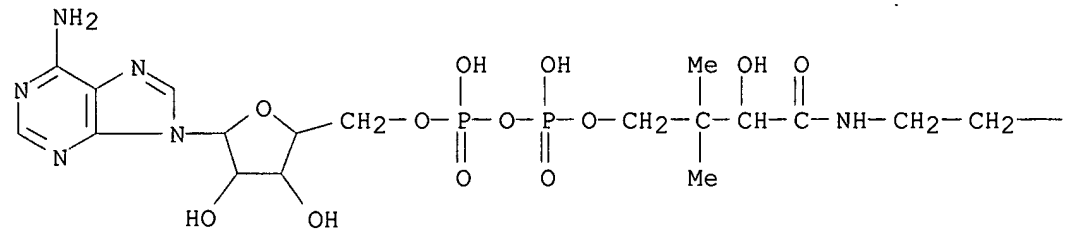
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

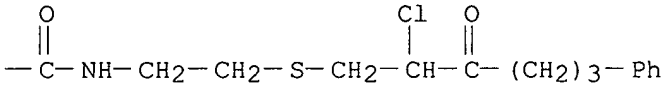
REFERENCE 1: 124:169116

L59 ANSWER 24 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **128409-68-7** REGISTRY
CN Coenzyme A, S-(2-chloro-3-oxo-6-phenylhexyl)- (9CI) (CA INDEX NAME)
MF C33 H48 Cl N7 O14 P2 S
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B

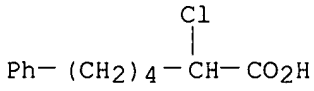


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 113:56233

L59 ANSWER 25 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **128409-67-6** REGISTRY
CN Benzenehexanoic acid, .alpha.-chloro- (9CI) (CA INDEX NAME)
FS 3D CONCORD
DR 128409-71-2
MF C12 H15 Cl O2
SR CA
LC STN Files: CA, CAPLUS, MEDLINE



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

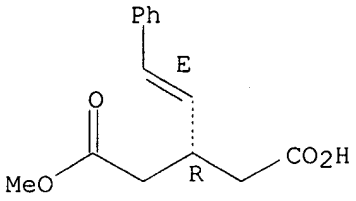
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 113:56233

L59 ANSWER 26 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **117214-00-3** REGISTRY
CN Pentanedioic acid, 3-(2-phenylethenyl)-, monomethyl ester, [R-(E)]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH

MF C14 H16 O4
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry as shown.



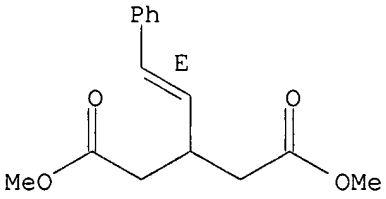
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 109:186743

L59 ANSWER 27 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **117213-93-1** REGISTRY
CN Pentanedioic acid, 3-(2-phenylethenyl)-, dimethyl ester, (E)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H18 O4
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

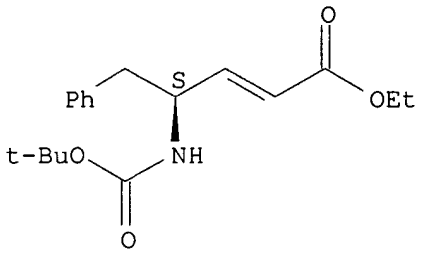
REFERENCE 1: 110:74799

REFERENCE 2: 109:186743

L59 ANSWER 28 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **116246-06-1** REGISTRY
CN 2-Pentenoic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-5-phenyl-, ethyl

ester, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H25 N O4
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:169116

REFERENCE 2: 113:153049

REFERENCE 3: 109:129688

L59 ANSWER 29 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **99858-37-4** REGISTRY
CN Benzene, (5-iodopentyl)- (6CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN (5-Iodopentyl)benzene
CN 1-Iodo-5-phenylpentane
CN 5-Phenyl-1-iodopentane
FS 3D CONCORD
MF C11 H15 I
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9 REFERENCES IN FILE CA (1967 TO DATE)
9 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:207397

REFERENCE 2: 133:222752

REFERENCE 3: 130:267212

REFERENCE 4: 130:52236

REFERENCE 5: 130:3689

REFERENCE 6: 124:8857

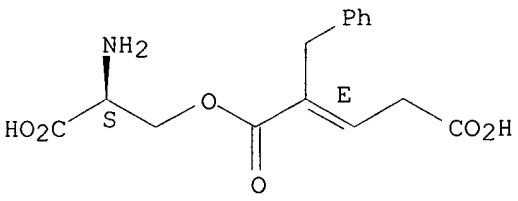
REFERENCE 7: 123:143878

REFERENCE 8: 122:313813

REFERENCE 9: 113:77634

L59 ANSWER 30 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **93383-65-4** REGISTRY
CN L-Serine, 5-hydrogen 2-(phenylmethyl)-2-pentenedioate (ester), (E)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H17 N O6
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry as shown.



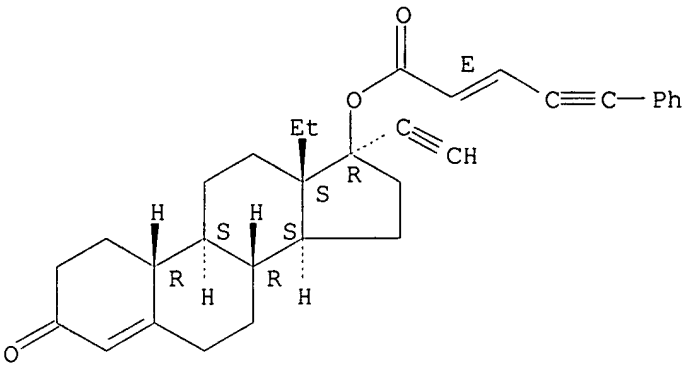
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 102:2495

L59 ANSWER 31 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **89094-76-8** REGISTRY
CN 18,19-Dinorpregn-4-en-20-yn-3-one, 13-ethyl-17-[(1-oxo-5-phenyl-2-penten-4-ynyl)oxy]-, [17.alpha.,17(E)]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C32 H34 O3
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

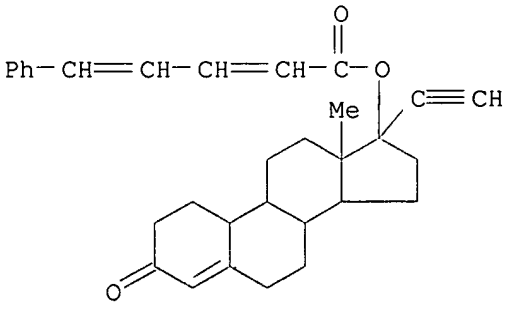
3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 102:154799

REFERENCE 2: 100:115151

REFERENCE 3: 100:115135

L59 ANSWER 32 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **89094-62-2** REGISTRY
CN 19-Norpregn-4-en-20-yn-3-one, 17-[(1-oxo-5-phenyl-2,4-pentadienyl)oxy]-, [17.alpha.,17(2E,4E)]- (9CI) (CA INDEX NAME)
MF C31 H34 O3
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

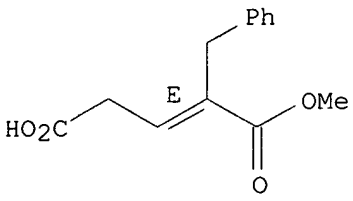
2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 100:115151

REFERENCE 2: 100:115135

L59 ANSWER 33 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **85533-91-1** REGISTRY
CN 2-Pentenedioic acid, 2-(phenylmethyl)-, 1-methyl ester, (E)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H14 O4
LC STN Files: CA, CAPLUS

Double bond geometry as shown.



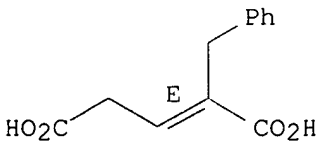
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 99:18590

L59 ANSWER 34 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **85533-88-6** REGISTRY
CN 2-Pentenedioic acid, 2-(phenylmethyl)-, (E)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H12 O4
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

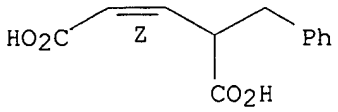
REFERENCE 1: 102:2495

REFERENCE 2: 99:18590

L59 ANSWER 35 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **85533-85-3** REGISTRY
CN 2-Pentenedioic acid, 4-(phenylmethyl)-, (Z)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH

MF C12 H12 O4
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

Double bond geometry as shown.



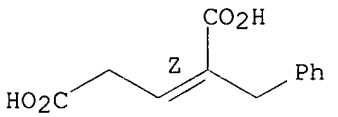
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 99:18590

L59 ANSWER 36 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **85533-84-2** REGISTRY
CN 2-Pentenedioic acid, 2-(phenylmethyl)-, (Z)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H12 O4
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

Double bond geometry as shown.



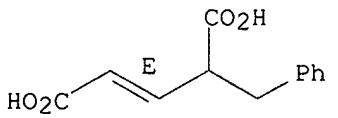
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 99:18590

L59 ANSWER 37 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **85533-83-1** REGISTRY
CN 2-Pentenedioic acid, 4-(phenylmethyl)-, (E)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H12 O4
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

Double bond geometry as shown.



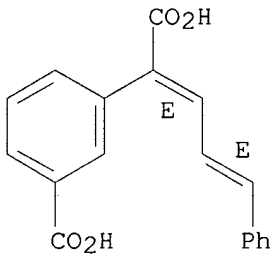
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 99:18590

L59 ANSWER 38 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **81995-43-9** REGISTRY
CN Benzeneacetic acid, 3-carboxy-.alpha.-(3-phenyl-2-propenylidene)-, (E,E)-(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H14 O4
LC STN Files: CA, CAPLUS, CASREACT

Double bond geometry as shown.

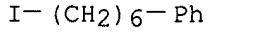


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 97:91946

L59 ANSWER 39 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **52121-98-9** REGISTRY
CN Benzene, (6-iodohexyl)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1-Iodo-6-phenylhexane
CN 6-Phenyl-1-iodohexane
CN 6-Phenylhexyl iodide
FS 3D CONCORD
MF C12 H17 I
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

14 REFERENCES IN FILE CA (1967 TO DATE)

14 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:295024

REFERENCE 2: 130:267212

REFERENCE 3: 130:52236

REFERENCE 4: 130:3689

REFERENCE 5: 126:277342

REFERENCE 6: 125:167772

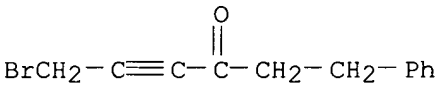
REFERENCE 7: 125:58199

REFERENCE 8: 123:143878

REFERENCE 9: 122:239193

REFERENCE 10: 113:77634

L59 ANSWER 40 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **37566-49-7** REGISTRY
CN 4-Hexyn-3-one, 6-bromo-1-phenyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 6-Bromo-1-phenylhex-4-yn-3-one
FS 3D CONCORD
MF C12 H11 Br O
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

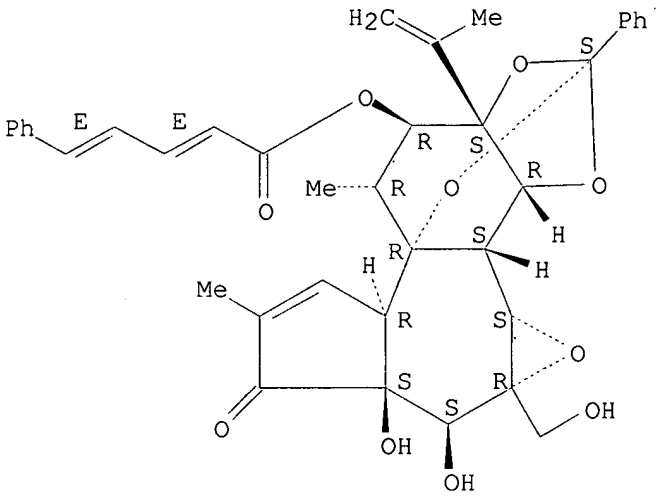
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 77:71959

L59 ANSWER 41 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **34807-41-5** REGISTRY
CN 2,4-Pentadienoic acid, 5-phenyl-, (2S,3aR,3bS,3cS,4aR,5S,5aS,8aR,8bR,9R,10R,10aS)-3a,3b,3c,4a,5,5a,8a,9,10,10a-decahydro-5,5a-dihydroxy-4a-(hydroxymethyl)-7,9-dimethyl-10a-(1-methylethenyl)-6-oxo-2-phenyl-6H-2,8b-epoxyoxireno[6,7]azuleno[5,4-e]-1,3-benzodioxol-10-yl ester, (2E,4E)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Daphnetoxin, 12-[(1-oxo-5-phenyl-2,4-pentadienyl)oxy]-, [12.beta.(2E,4E)]-
OTHER NAMES:
CN 2,4-Pentadienoic acid, 5-phenyl-, 3a,3b,3c,4a,5,5a,8a,9,10,10a-decahydro-5,5a-dihydroxy-4a-(hydroxymethyl)-7,9-dimethyl-10a-(1-methylethenyl)-6-oxo-2-phenyl-6H-2,8b-epoxyoxireno[6,7]azuleno[5,4-e]-1,3-benzodioxol-10-yl

ester, [2S-[2.alpha.,3a.beta.,3b.beta.,3c.beta.,4a.beta.,5.beta.,5a.beta.,
8a.alpha.,8b.alpha.,9.alpha.,10.beta.(2E,4E),10a.beta.]]-
CN Meserein
CN Mezerein
CN Mezereine
CN NSC 239072
FS STEREOSEARCH
DR 30220-44-1, 32207-09-3
MF C38 H38 O10
CI COM
LC STN Files: ADISINSIGHT, AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CHEMCATS, CIN, CSCHEM, DDFU, DRUGU, EMBASE, MEDLINE, NAPRALERT, NIOSHTIC, PROMT, RTECS*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

432 REFERENCES IN FILE CA (1967 TO DATE)
433 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288676

REFERENCE 2: 136:148710

REFERENCE 3: 136:31428

REFERENCE 4: 136:15800

REFERENCE 5: 135:284382

REFERENCE 6: 134:348688

REFERENCE 7: 134:261200

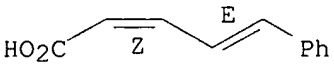
REFERENCE 8: 134:141737

REFERENCE 9: 134:1524

REFERENCE 10: 133:358827

L59 ANSWER 42 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **28010-13-1** REGISTRY
CN 2,4-Pentadienoic acid, 5-phenyl-, (Z,E)- (8CI, 9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H10 O2
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMINFORMRX
(*File contains numerically searchable property data)

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

14 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
14 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:56016

REFERENCE 2: 121:157229

REFERENCE 3: 116:151455

REFERENCE 4: 116:2232

REFERENCE 5: 110:121165

REFERENCE 6: 107:77283

REFERENCE 7: 96:104596

REFERENCE 8: 94:151746

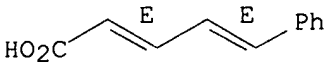
REFERENCE 9: 93:203839

REFERENCE 10: 91:210563

L59 ANSWER 43 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **28010-12-0** REGISTRY
CN 2,4-Pentadienoic acid, 5-phenyl-, (2E,4E)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentadienoic acid, 5-phenyl-, (E,E)- (8CI)
OTHER NAMES:
CN (2E,4E)-5-Phenyl-2,4-pentadienoic acid
CN (2E,4E)-Cinnamylideneacetic acid
CN (E,E)-5-Phenyl-2,4-pentadienoic acid
CN .alpha.-trans-.gamma.-trans-.beta.-Styrylacrylic acid
CN 5-Phenyl-2E,4E-pentadienoic acid
CN 5-Phenyl-trans-2,trans-4-pentadienoic acid

FS STEREOSEARCH
MF C11 H10 O2
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMINFORMRX, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

50 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
50 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:294651

REFERENCE 2: 136:279218

REFERENCE 3: 135:366118

REFERENCE 4: 135:195169

REFERENCE 5: 135:192530

REFERENCE 6: 134:280547

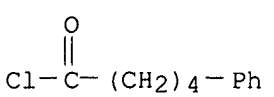
REFERENCE 7: 132:307866

REFERENCE 8: 131:322807

REFERENCE 9: 130:95351

REFERENCE 10: 130:52013

L59 ANSWER 44 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **20371-41-9** REGISTRY
CN Benzenepentanoyl chloride (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Valeryl chloride, 5-phenyl- (8CI)
OTHER NAMES:
CN 5-Phenylpentanoyl chloride
CN 5-Phenylvaleryl chloride
FS 3D CONCORD
MF C11 H13 Cl O
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

65 REFERENCES IN FILE CA (1967 TO DATE)
65 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:282685

REFERENCE 2: 135:253261

REFERENCE 3: 135:210837

REFERENCE 4: 135:92538

REFERENCE 5: 133:321879

REFERENCE 6: 132:264741

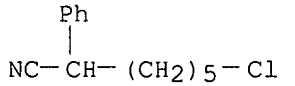
REFERENCE 7: 132:208142

REFERENCE 8: 132:78577

REFERENCE 9: 131:351322

REFERENCE 10: 131:214285

L59 ANSWER 45 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **14377-66-3** REGISTRY
CN Benzeneacetonitrile, .alpha.-(5-chloropentyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Heptanenitrile, 7-chloro-2-phenyl- (8CI)
FS 3D CONCORD
MF C13 H16 Cl N
LC STN Files: BEILSTEIN*, CA, CAPLUS, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

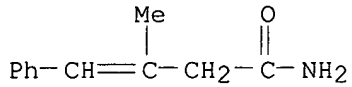
REFERENCE 1: 126:74591

REFERENCE 2: 120:244331

REFERENCE 3: 66:94792

L59 ANSWER 46 OF 47 REGISTRY COPYRIGHT 2002 ACS
RN **7236-47-7** REGISTRY
CN 3-Butenamide, 3-methyl-4-phenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:

CN .beta.-Benzalbutyramide
CN 3-Methyl-4-phenyl-3-butenamide
CN 3-Methyl-4-phenyl-3-butenoic acid amide
CN Kata-Lipid
CN Lipidemol
CN Lipobeta
FS 3D CONCORD
MF C11 H13 N O
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, HODOC*, IPA, MEDLINE, MRCK*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17 REFERENCES IN FILE CA (1967 TO DATE)
17 REFERENCES IN FILE CAPLUS (1967 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:273206

REFERENCE 2: 134:530

REFERENCE 3: 132:73218

REFERENCE 4: 88:16047

REFERENCE 5: 81:169330

REFERENCE 6: 76:43361

REFERENCE 7: 75:86118

REFERENCE 8: 72:131022

REFERENCE 9: 72:120015

REFERENCE 10: 72:88824

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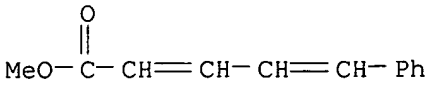
RN **1516-24-1** REGISTRY
CN 2,4-Pentadienoic acid, 5-phenyl-, methyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Methyl 4-phenylbutadienecarboxylate
CN Methyl 5-phenyl-2,4-pentadienoate
FS 3D CONCORD
MF C12 H12 O2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMINFORMRX, HODOC*, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1967 TO DATE)
20 REFERENCES IN FILE CAPLUS (1967 TO DATE)
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 130:81047

REFERENCE 2: 127:304705

REFERENCE 3: 125:85964

REFERENCE 4: 125:58265

REFERENCE 5: 124:202303

REFERENCE 6: 119:8882

REFERENCE 7: 113:114384

REFERENCE 8: 110:8600

REFERENCE 9: 108:21792

REFERENCE 10: 106:84485